REPORT RESUMES

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A BETTER CHANCE, AND EDUCATIONAL PROGRAM SPONSORED BY
DARTMOUTH COLLEGE.
BY- DEY, CHARLES F. JACKSON, DAVIS
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A SUMMER PROGRAM OFFERED INTENSIVE ACADEMIC PREPARATION TO DISADVANTAGED BOYS WHO HAD RECEIVED SCHOLARSHIPS TO INDEPENDENT SCHOOLS. THE PROGRAM'S STRESS ON ENGLISH, READING, AND MATHEMATICS WAS MAINTAINED BY CLOSE PERSONAL CONTACT BETWEEN STAFF AND STUDENTS, SMALL CLASS SECTIONS, AND INDIVIDUAL TUTORING. THE TUTORS LIVED WITH THE STUDENTS THROUGHOUT THE PROGRAM AND WERE THUS ABLE TO SPOT POTENTIAL DIFFICULTIES AND TO ACT TO RESOLVE THEM. THROUGH THEIR INSIGHT INTO THE STUDENTS' PERSONALITIES THEY WERE ABLE TO BROADEN AND INTENSIFY THE OVERALL IMPACT OF THE PROGRAM. WEEKEND EXCURSIONS, CULTURAL ACTIVITIES, AND ATHLETICS ALSO WERE MADE A PART OF THE PROGRAM. SEVENTY-FOUR OF THE 82 PARTICIPATING STUDENTS WERE RECOMMENDED TO THE PREPARATORY SCHOOLS. A 5-YEAR FOLLOWUP STUDY OF THE ACADEMIC CAREERS OF THE PARTICIPATING STUDENTS IS PLANNED. (NH)

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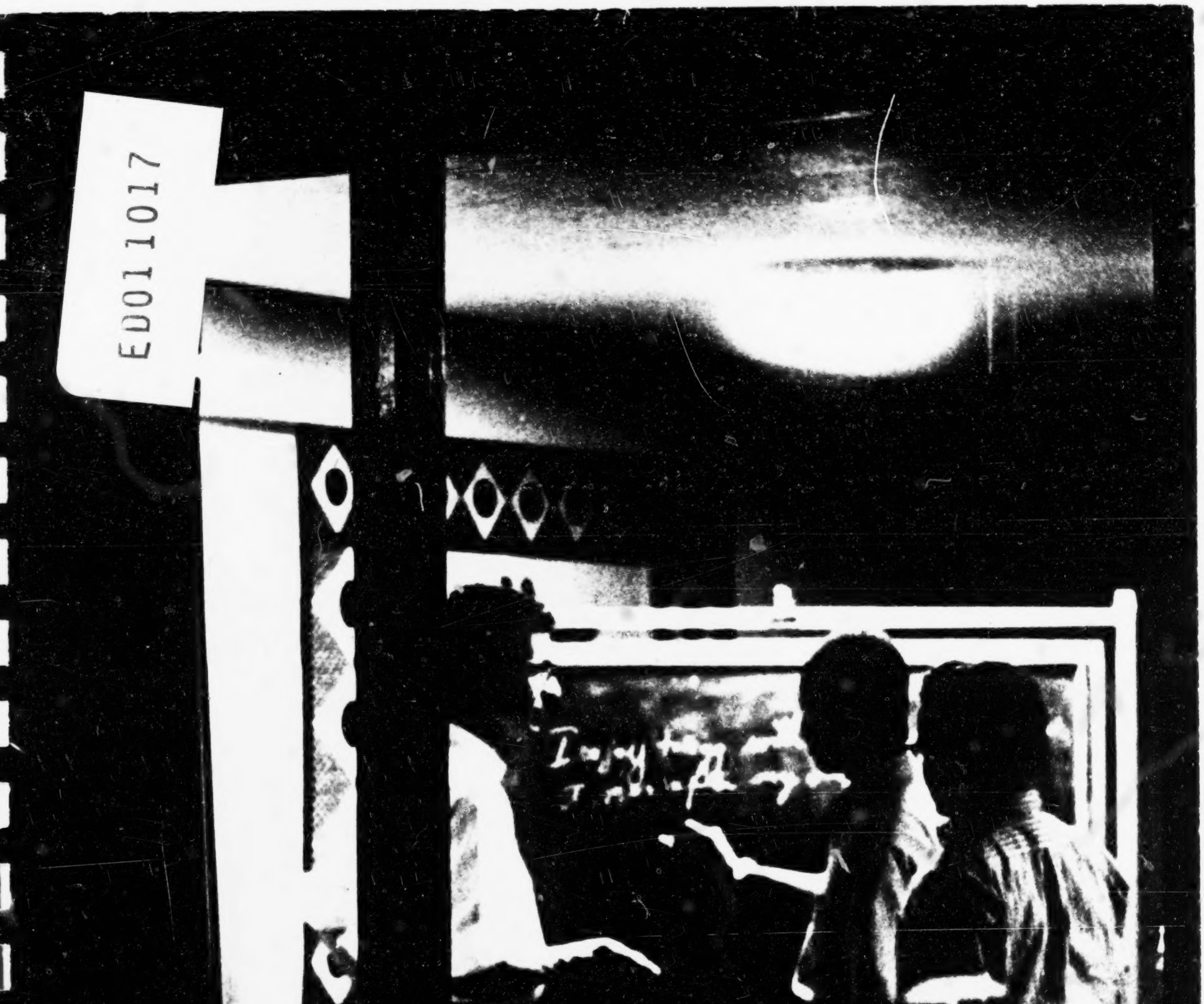

UD 002 272

ABC 1965 · Dartmouth

INDEPENDENT SCHOOLS OFFERING ADMISSION TO 1964 and/or 1965 ABC STUDENTS

Birch Wathen School
New York, N.Y.

Cheshire Academy
Cheshire, Conn.

The Choate School
Wallingford, Conn.

The Collegiate School
New York, N.Y.

Commonwealth School
Boston, Mass.

Cornwall Academy
Great Barrington, Mass.

Cushing Academy
Ashburnham, Mass.

Darrow School
New Lebanon, N.Y.

Deerfield Academy
Deerfield, Mass.

DeVeaux School
Niagara Falls, N.Y.

George School
Bucks County, Pa.

Governor Dummer Academy
South Byfield, Mass.

Groton School
Groton, Mass.

The Gunnery
Washington, Conn.

Hackley School
Tarrytown, N.Y.

The Hill School
Pottstown, Pa.

Holderness School
Plymouth, N.H.

Hotchkiss School
Lakeville, Conn.

Kimball Union Academy
Meriden, N.H.

Kent School
Kent, Conn.

Lawrenceville School
Lawrenceville, N.J.

Lenox School
Lenox, Mass.

Mercersburg Academy
Mercersburg, Pa.

Milton Academy
Milton, Mass.

Mountain School
Vershire Center, Vt.

Mount Hermon School
Mount Hermon, Mass.

New Hampton School
New Hampton, N.H.

Noble & Greenough
Dedham, Mass.

The Peddie School
Hightstown, N.J.

Phillips Academy
Andover, Mass.

Phillips Exeter Academy
Exeter, N.H.

Pomfret School
Pomfret, Conn.

St. George's School
Newport, R.I.

St. Mark's School
Southborough, Mass.

St. Paul's School
Concord, N.H.

Solebury School
New Hope, Pa.

Suffield Academy
Suffield, Conn.

Taft School
Watertown, Conn.

Tilton School
Tilton, N.H.

Verde Valley School
Sedona, Ariz.

Vermont Academy
Saxtons River, Vt.

Western Reserve Academy
Hudson, Ohio

Wilbraham Academy
Wilbraham, Mass.

Windsor Mountain School
Lenox, Mass.

Woodstock Country School
South Woodstock, Vt.

The Wooster School
Danbury, Conn.

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A Better Chance

An Educational Program
Sponsored by Dartmouth College

Assisted by the Rockefeller Foundation
and the Office of Economic Opportunity

In Cooperation with the
Independent Schools Talent Search Program

Report by Charles F. Dey, Director

Davis Jackson, Associate

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Staff

ABC RESPONSIBILITY	NAME	PREVIOUS ACADEMIC YEAR
Director	Charles Dey	Associate Dean Dartmouth College
Assistant Director	Earl Shaw	Graduate Student, Physics Univ. of Calif.,Berkeley
English Co-ordinator	John Lincoln	Chairman, English Dept. The Choate School
English Instructors	Richard Brown	English Instructor Danbury J.H.S., Conn.
	Albert Clough	English Instructor Mount Hermon School
	Carrie Robinson	English Professor Winston-Salem State College
Mathematics Co-ordinator	Thomas Mikula	Mathematics Instructor Phillips Academy, Andover
Mathematics Instructors	Alexander Marshall	Chairman, Mathematics Dept. Lincoln-Sudbury H.S., Mass.
	David Mitchell	Mathematics Instructor The Taft School
	U. Van Spiva	Mathematics Instructor Glenville H.S., Cleveland
Reading Instructors	James Achterberg	Director of Admissions George School
	Lois Masland	Reading Specialist Hanover Tp. Schools, N.J.
Research Director	Alden Wessman	Psychology Professor Sarah Lawrence College
Resident Tutors (Dartmouth Students)	Jeffery Amory	English major
	Richard Clapp	Pre-Medicine
	Lawrence Geiger	History major
	John McCarthy	Greek & Roman Studies major
	Thomas Mitchell	Philosophy major
	Frank Mwine	Government major
	Andrew Newton	English major
	Richard Tabors	Biology major
	Daniel Thompson	Philosophy major
Resident Tutor (Dartmouth Graduate)	Floyd Peterson	Union Theological Seminary
Resident Tutor Alternate	Brian Kluck	Psychology major
Administrative Assistant	Phyllis Carlson	Project ABC
Office Assistant	Harold Robinson	ABC '64 Phillips Academy, Andover

. . . Preparatory school has been quite a new experience for me. But all in all I've really enjoyed it here. I've met so many different people; been exposed to so many new ideas, experiences, and situations.

Many things that I used to think were important and essential to me I have found sometimes not to be so august after all . . . and vice versa also!

I've learned to develop a clearer and more perceptive way of thinking about or viewing all kinds and types of problems — and people. I guess I've got a lot more road to travel too, but looking back, even now, it kind of surprises me to see the changes I've made.

. . . . 1964 ABC student nearing the end of his first year at preparatory school.

Foreword

With the broad objective of helping disadvantaged students gain a better chance, and the specific objective of helping ninth and tenth grade youngsters make the transition from public to private schools, Dartmouth College launched Project ABC in the summer of 1964. In the words of Dartmouth President John Sloan Dickey, "Our objective is to help remedy academic and cultural deprivation which stands between a promising potential and its educational fulfillment". ABC Report 1964 described our first summer experience and the process by which forty-nine of our fifty-five students entered preparatory school in September 1964. To that apprehensive but hopeful document we can now append the reassuring testimony that all forty-nine completed their first year at preparatory school.

Not only did ABC students survive their first year, but more remarkably, most prospered in their new environment. In round figures, of 260 major courses studied, final grades showed 60 in the honors category (80 or above) and only 10 courses failed. There were dramatic surprises (a student from a rural Southern town who came to us with a 96 I.Q. made Honor Roll at one of the nation's most competitive secondary schools) and few disappointments. Two of the forty-nine did not return to preparatory school this past September for their second year. One, a white student, chose not to renew what had been a terrific struggle; the other, a Negro, did not have his scholarship continued because of his indifferent attitude and effort. On the brighter side, two of the students who did not proceed to preparatory school in 1964 were able to enroll in 1965. During the intervening year one was able to resolve a complex family situation and the other underwent a marked change of attitude which convinced us that he should be given a second chance. Thus the 1964 ABC group in preparatory school continues to number forty-nine.

It was not only the progress of the 1964 students, but also favorable responses from the preparatory schools which led us to continue the program in 1965. From a small band which, in the spring of 1963, took the initiative to organize and collectively seek out larger numbers of disadvantaged students, the preparatory schools (formally organized as the Independent Schools Talent Search Program) have steadily increased in number and strengthened in commitment. As of this writing, nearly one hundred preparatory schools from coast to coast are participating in the program. This increase, plus the unanticipated injection of federal funds made it possible for us to enlarge the 1965 program. The Dartmouth program was increased to eighty-two students and Mount Holyoke College launched an ABC counterpart for seventy-two girls. We hope that in the summer of 1966 ABC will serve 400 new students on five college campuses. Perhaps the following diagram will better illustrate this growth:

	1964	1965	1966 (est)
DARTMOUTH	55	82	80
HOLYOKE		72	80
CARLETON			80
TO BE NAMED			80
TO BE NAMED			80
Total	55	154	400
Minus summer attrition	6	13	?
Total enrolled	49	141	?

Turning back to the more immediate concern of this report, we would emphasize that although the overall ABC-ISTSP program is rapidly changing in size and scope, the 1965 Dartmouth summer program, in philosophy and design, was essentially the same as in 1964. Our job in eight weeks was to subject ABC students to the academic rigors of a preparatory school. We hoped thereby to determine which students had the intellectual capacity and personal qualities — desire and courage — to succeed at preparatory school. And we believed it equally important for ABC students to have the opportunity to measure themselves against preparatory school standards and decide whether, in fact, this was a challenge they wanted. Seventy-four of the eighty-two students qualified, wanted it, and are now enrolled in preparatory school.

These results were obtained, however, only through unreasonable demands upon teachers and tutors. Conscious of the high per student cost in 1964, we felt obliged to explore ways to economize. We enlarged the program from 55 to 82 students without proportionately expanding the teaching faculty. Particularly in English, this proved a mistake, the burden unfair to faculty, the ratio unfair to students, the cumulative toll harmful to the program. As a result ABC '66 will rigidly limit each English section to eight students. We concluded that effective development of thought and expression, particularly skill in composition, founders on gimmicks or short cuts. There is no substitute for teachers and tutors having unhurried time for each student. This relationship puts the academic temper into ABC and makes it more than a summer's enrichment. The English essay of an ABC student suggests that anything less would be a disservice; "I have grunted and groaned because of what we go through here, but the fact remains that I understand..."

Selection of Students

Under the continued direction of James E. Simmons, the Independent Schools Talent Search Program (ISTSP) again recruited disadvantaged students for contingent admission to specific preparatory schools and the ABC summer transition. As the program has expanded, students have been recruited increasingly through "resource persons" — the professional man, the minister, the social worker, the teacher or guidance counselor — people usually in the best position to establish a candidate's personal qualities — motivation and sense of purpose, integrity and curiosity. And, since these students are identified as "risk" candidates, it is important that ABC and subsequently the member schools have as much information about these personal qualities as possible. An increasingly important function of the ISTSP staff is to coordinate the efforts of these resource people, to see that they are well-informed about the program and to encourage them as much as possible in their efforts on behalf of the program. The soundness of this orientation has been confirmed by the enthusiasm and wisdom they have brought to bear in telling the story of ABC-ISTSP to their communities.

Because problems of the disadvantaged are receiving national attention and because programs for the disadvantaged have multiplied dramatically, we believe it particularly important that we use ABC-ISTSP scholarships for those students most in need of educational alternatives. We must be careful not to go after those students already identified as promising, sought after by other programs and virtually assured of college admission. Ideally, our program should serve disadvantaged students whose college futures are not assured, whose immediate futures are cloudy. On the other hand, these are neither the C students nor the unmotivated. They must have shown sufficient promise to persuade us that it is both reasonable and fair to encourage them to enter preparatory school. They should be students in need of academic challenge or change of environment, students who, if given the chance, will aggressively help themselves. Many of these youngsters will defy conventional testing, but hopefully they will be promising young Americans who possess what we characterize as "a long reach".

It is our impression that the second year we had a "safer" group, and we have the uneasy feeling that ultimately their individual accomplishments may fall short of the record being compiled by the 1964 ABC students. Our hope for next year is that we can further refine our criteria in terms of abrasiveness, potential leadership and reach. We owe this to the preparatory schools, to our society, and, most of all, to our reservoir of talented youngsters whose promise so often is not realized because it does not readily respond to traditional measuring devices.

Faculty

We were fortunate in having three 1964 veterans, two of them, John Lincoln and Thomas Mikula, to anchor our teaching staff as Co-ordinators in English and Mathematics. They succeeded in bringing together competent and congenial associates, all of them secondary school teachers. These men and women had in common not only boundless energy and keen sensitivity to individual needs, but also the view that the process of learning is a joint search, the route to knowledge perhaps more important than the knowledge itself. Added to this commitment was a bias favoring indirect teaching; the teacher leads but seldom shows, questions but only reluctantly answers, foreshadows but only grudgingly reveals; the student weighs alternatives, selects, falters, reaches out again. The process must be personal and persistent — no hiding. In Mathematics and Literature, questioning was the heart of the exchange — occasionally the question "what?", more often "why?". In composition, with trip-hammer regularity — write, proof, correct, review with teacher — rewrite, proof, correct, review with teacher; repeat this not only until words and phrases are grammatically correct, but until thoughts and words come alive.

The faculty role outside the classroom was equally important — at dinner, the theater, on a weekend trip, in the evening quiet of living room or study. From their apartments in the dormitories, faculty families provided warmth, reinforcement and example.

When in years ahead students look back on ABC, it will be with memories not of buildings, books or program, but of men and women who were willing to see them the "extra mile", teachers who, through their deep concern, endless patience and abiding faith, witnessed their conviction that each student mattered.

Resident Tutors

So much has been said about the importance of undergraduates living and working with disadvantaged students that we are reluctant to pluck familiar chords. Yet this report would be seriously deficient if I did not re-emphasize the unique and enormous contribution made by these young men. Unstinting of themselves, unflagging in their optimism, soberly aware of their responsibilities, they, more than any of us, persuaded ABC students "it's for real".

Having learned in the summer of 1964 to appreciate both their heavy burden and their singular potential, we innovated accordingly for the 1965 tutors. To lessen the burden, we granted them course credit for their spring term preparation. This meant that without increasing their academic load, we could expect them to become familiar with ABC materials, visit preparatory schools, attend weekly seminars and take responsibility for developing most of the non-academic aspects of the summer program. We also added an extra tutor who assumed many administrative chores performed by the regular tutors during the first summer. Finally, having found that a useful academic role significantly enhanced their status and effectiveness, we gave tutors more responsibility for supplementing classroom instruction.

In addition to relying on tutors for "eyeball-to-eyeball" contact, the perceptive tutor often gave us our most significant feedback. Though we do not necessarily subscribe to their conclusions, the following resident-tutor reactions to some of ABC's continuing dilemmas illustrate, we think, insight and mature understanding of subtler dimensions.

One continuing dilemma has been the type of youngster who should be served by ABC. Should it be a thirteen-year-old who has more time to adjust to preparatory school academic demands or the fifteen-year-old who has experienced more of life, is less likely to lose his personal identity and who, because of his greater understanding of The Problem (and, in our experience, seemingly greater determination to make a difference), might use the ABC opportunity to greater advantage? We are unclear about the answer, but Daniel Thompson '65, a veteran tutor of two years' experience offers this counsel:

> I see ABC as, first and most importantly, a way to help develop the leadership to work for the erasure of the conditions which account for the existence of oppressed minority groups. This does not mean that we are trying to train agitators, activists, and so forth. But if ABC has arisen out of the realization of the fact that equal opportunity ordinarily does not exist for Negroes and other minority groups, then it must set its sights on the long-range goal of equal opportunity, In light of this ABC should, I think, look for the boy who has seen enough of the block to know what it is and to be angry with it. This is not necessarily the older boy, but I think that this is how it will turn out. As long as I hear comments like the following, which comes from one of this summer's fourteen-year-olds, I am reassured that we are headed in the right direction. One of my students, rebelling against the highly structured and regulated routine, said, loudly enough for me to hear, that he would resist any attempt to turn him into a 'dignified faggot'. I am confident that he will make a difference in this society.

Another perplexity has been the extent to which we should focus on racial issues (some say not at all) and build into the ABC curriculum opportunity to consider these issues. The first summer, believing harmonious integration of faculty, tutors and students sufficient example, we did not search for ways to point up the problem. Instead, in literature and discussions, we concentrated on problems common to the broader human condition. This summer we preserved this emphasis in literature, but in other areas we made a conscious effort to explore racial problems. The wisdom of doing so was acridly debated at our final staff meetings, and opinion continues to be sharply divided. Interesting to us is the position taken by resident-tutor Frank Mwine '67, a Dartmouth student from Uganda:

> As was pointed out in the last meeting, I favor the idea of introducing programs that would stimulate thinking about Negroes as a race. Awareness of the special identity of one's race does not necessarily create prejudice just as aware-

> ness of one's individuality does not create a hatred for mankind. Rather it gives a much more clear focus as to how one, as a member of one race, can best interact with members of other races. In a country like the United States where people are more sensitive about race than any peoples I have seen, ABC students' position on race does and will determine a lot about their social activities in preparatory school and in college, their circles of friends, their jobs or professions and their psychological stability. Something should be done to develop and make active this important but largely dormant part of their self-identity, without of course failing to remind them that they are individuals first.

Perhaps our most serious apprehension has been the extent to which the ABC-preparatory school experience may estrange these youngsters from family, friend and culture. Related to potential alienation is the question most frequently asked those of us responsible for ABC — "Will they go back?" Resident-tutor Floyd Peterson '63, a Negro currently in his third year at Union Theological Seminary, expresses a conservative position:

> It is a recorded fact that when a young person is offered the opportunity to develop himself through education and contact with different social groupings such that more paths are open to him than are found within his own community, he is not likely to return to his home community. A gap arises between him and his home community; he no longer has his closest friends at home, his language isn't the same as that of his old friends, his goals are less narrowly defined. The student who comes out of his home community and is educated so that he stands in the position of being most able to do something for the community does not do what one would expect him to do. He becomes too busily engaged in developing his own life to be effectively involved in developing his community. Along with the preparatory schools, ABC is to a degree responsible for this gap and its consequences.
>
> It seems to me that the gap is inevitable and should be accepted as such. To expect more of the students than that they be good students ...is to show oneself to be laboring under the hidden premise of not giving something for nothing.

> The whole question of the gap is a complex one, and would probably involve an examination of the place of ABC among other types of organizations and movements engaged in social change today. From this perspective, it is likely to be the case that ABC would do its part by concentrating on getting the math and English background of the students as far up to preparatory school level as possible.

ABC serves a variety of students, but also a variety of schools, each with its own structure, philosophy and system of discipline. And the systems reflect widely divergent philosophies about the pace at which a youngster should be given ever larger amounts of freedom and responsibility for his own actions. For example, whereas at some schools the penalty for smoking is immediate suspension, at others smoking is a matter left to the student and his parents. In relief less bold, differences abound in other elements of boarding school life — tardiness, cleanliness, manners, lights out, noise, consideration for others, etc. The problem for ABC is which system, if any, should we attempt to follow? Tutor Jack McCarthy '61 doesn't directly answer this dilemma, but he offers an interesting approach to the question of discipline:

> A tutor should have a lot of imagination, especially in dealing out punishment. I tried to make the 'punishment fit the crime'. If they had lights on after lights out, I took their light bulbs; for a pillow fight, their pillows. The boys can understand, appreciate and even enjoy such reprisal. At times I suspected them of getting my goat in unusual ways just to see what I'd come up with. The tutor must have a sense of humor, be able to give and take, and especially to laugh at himself. A good crack from a boy to a tutor will get a good reaction from the other boys, but if the tutor can come back with something passably humorous, the reaction is much greater and more favorable.
>
> Much of the time a tutor finds himself operating on the basis of instinct — half-formed impressions, gut reactions. My most important decisions of the summer had such roots, and if I had not had confidence in my instincts, I might have lost two boys — possibly three.

It would seem appropriate to conclude this section by quoting from a letter written by one of Jack's students: "...This summer has been the greatest thing that has ever happened to me in my life. As Martin Luther King once said, 'Occasionally in life there are those moments of unutterable fulfillment which cannot be completely explained by those symbols called words'; such is my case. I made many friends young and old with very interesting experiences, which I know will never be replaced... Remember please if you see Mr. McCarthy, give him the letter and give him a special thank you. He was the best friend I ever had and the best friend anyone could ever have. He trusted me a great deal and I thank him for that...it gave me more confidence."

Daily Schedule

All concerned with the Project held to their original conviction that the boys' interests and intellectual advancement would best be served by limiting their studies to mathematics and the uses of the English language, believing that later success in other disciplines depended on these fundamental kinds of thinking and communication.

Each boy began his summer with a daily schedule like the one shown on the next page; a week's work included nine hours of instruction in mathematics, nine in English, and six in reading. Individuals with notable strengths or weaknesses were given adjusted schedules after the first two weeks, and a considerable number, lacking real reading problems, were later dropped from the reading course so that they might make further gains in math and English.

At its final meeting the faculty pondered the question whether next year's curriculum might well find classes in developmental reading eliminated, so that the hours saved might be added to English composition and literary analysis, while at the same time work in remedial reading might be given those specially in need of it.

The reports which follow in the next two sections were written by the academic coordinators. Their reports are supplemented by appendixes D, E and F.

Sample Schedule

PROJECT ABC · 1965 · DAILY SCHEDULE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7:15	BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST	FOR STUDENTS NOT ON WEEKEND TRIPS BREAKFAST 8:00-9:00
PERIOD I 8:00-8:50	MATH	MATH	MATH	MATH	MATH	MATH	
PERIOD II 8:55-9:45	ENGLISH	STUDY	ENGLISH	STUDY	ENGLISH	STUDY	CHURCH SERVICES
9:45-10:05	MILK BREAK	MILK BREAK	MILK BREAK	MILKBREAK	MILK BREAK	NO BREAK	
PERIOD III 10:05-10:55	READING	MATH	READING	MATH	READING	9:50-10:40 MATH	LUNCH 11:30-12:30
PERIOD IV 11:00-11:50	ENGLISH	ENGLISH	ENGLISH	ENGLISH	ENGLISH	10:45-11:35 ENGLISH	
11:55	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	11:45 LUNCH	
PERIOD V 1:00-2:00	FACULTY APPOINTMENT OR STUDY	FACULTY APPOINTMENT OR STUDY	ACTIVITIES	FACULTY APPOINTMENT OR STUDY	FACULTY APPOINTMENT OR STUDY	FOR STUDENTS REMAINING IN HANOVER, SUPPER 5:45	ALL STUDENTS SUNDAY MEETING 5:15
PERIOD VI 2:30-4:30							
5:50	SUPPER	SUPPER	SUPPER	SUPPER	SUPPER		SUPPER
7:00-10:00	STUDY	STUDY	STUDY	STUDY	STUDY		STUDY

A Report on the English Program

The Aims:

In preparing for the 1965 session of Project ABC, the English teachers selected three primary objectives. They would try to help their students develop skill in composition, skill in the reading of mature literature, and skill in class discussion. The students would also be encouraged to form efficient study habits and to respect high standards of effort and achievement. Having established these aims, the teachers adopted a schedule and a curriculum which, they hoped, would enable every boy to become a better English student by the end of the eight weeks allotted for the Project.

The Schedule and Sectioning:

In early May the faculty appointed for the 1965 session gathered in Hanover to complete the planning. At this time the English teachers agreed to assign the anticipated eighty boys to eight sections containing about ten students. Each teacher would be responsible for two sections, which he would meet nine times a week in periods lasting fifty minutes. On Monday through Saturday all of a section (to be known as "a class") would gather to discuss the reading and to receive instruction in composition. For three other meetings in the week the "classes" would be divided in half, if possible, so that the teacher and his students could undertake special work in composition. (These groups were to be known as "conferences" or "workshops".) In addition to these regular meetings, an hour after lunch (except for Wednesday, Saturday and Sunday) was to be available for Faculty Appointments. In this hour teachers of English, mathematics and reading could work with one or more students as they wished. Lastly, a plan was approved whereby the boys would be assigned ninety minutes of homework for every English class. This requirement would be waived whenever the boys attended a lecture, play, or movie at the request of their teachers.

At this time the English teachers also agreed that the needs of their colleagues in Mathematics and Developmental Reading should be given priority when the class rosters were prepared in June. That is, the English teachers did not believe that they would have any serious difficulty if they were obliged to work with classes containing boys of heterogeneous ability.

For the first three weeks of the actual session the English teachers followed this schedule. During that time every teacher was able to meet the needs of most of his students in a satisfactory manner. However, it soon became apparent that a few boys with above average ability were not being challenged as much as the rest. Through the co-operation of Mr. Thomas Mikula, the Mathematics Co-ordinator, and the two Reading teachers, Mr. James Achterberg and Mrs. Lois Masland, the schedules of these few boys were changed on July 17 so that they could be placed in a class containing several other able English students. Four days later a more extensive re-arrangement had to be undertaken when one of the English teachers was obliged to withdraw because of illness. Since a suitable replacement could not be found, each of the other three teachers was asked to receive an additional seven students into his classes. Once again Mr. Mikula helped prepare the new schedules, and everyone else involved co-operated nicely.

A third change in the schedule involved the period after lunch. At the request of the teachers, who wished to have one more opportunity to work with individual boys, Wednesday was added to the days having regular Faculty Appointments. The fourth, and last innovation brought Mr. Richard Jaeger of Dartmouth College into the Project. For three weeks he tutored six boys in the period after lunch and thereby enabled the regular instructors to work with the other students, who needed less intensive help.

An Evaluation

At the conclusion of the 1965 Project the English teachers proposed the following revisions in the schedule and classes:

1. They recommend that every student take English twice a day for six days a week. They believe that an additional

three meetings would enable them to do a better job in all aspects of their work. This summer they were obliged to slight certain items in the curriculum, and they would like to explore the effectiveness of an arrangement that would allow a student to practice in a second period a construction that he and the teacher had examined earlier in the morning. To achieve this, the English teachers recommend a schedule with five morning periods instead of the present four.

2. They also recommend that no class contain more than eight boys. A group of this size or smaller is essential if every boy is to be encouraged to discuss literature and other matters. The experience of the last four weeks of the session provided convincing evidence for this view. In the first place, in sections of twelve, thirteen, or fifteen boys, only the bold or able students volunteered comments with any regularity. The other boys — the shy, the diffident, and the inexperienced — tended to audit the discussion, whereas earlier, when the classes had numbered ten or less, these boys had begun to speak up, to the delight of every teacher.

   In the second place, a class of thirteen or more results in conferences, or workshops, of six, seven, or eight. These numbers thwart the type of instruction that these sections were originally designed to serve.

   Finally, it is unreasonable to ask the teachers to honor a basic feature of the curriculum — daily writing by the student and prompt correction and re-correction by the teacher — if in doing so they must read and correct over forty different papers a day. This figure is customary, once the system of writing and revision gets underway, if a teacher has more than twenty students. A sensible arrangement would leave a teacher with no more than sixteen students. (He would meet them in classes of eight and in conferences of four or five, provided the conferences could be continued in the proposed schedule, which would require a boy to meet with his English teacher twice a day.)

3. The English teachers also recommend that the faculty appointe for 1966 ponder the advantages and disadvantages of homogeneous and heterogeneous sectioning. The present staff recognize the advantages that accrue to able boys when they are placed in a homogeneous class: the youngsters are encouraged to read, write, and talk as best they can. Yet the homogeneous grouping of less able students can have a poor effect if, as is likely, they are accustomed to sitting through a class without volunteering a comment or question. Usually a teacher can improve the situation; but the process takes time, and his voice tends to dominate the discussion. If, on the other hand, the sectioning is heterogeneous, the

fluent, interested students provide a stimulating example to the others, who soon begin to participate without being prodded to do so. (This reaction may not take place, however, if the class is large.)

The Reading:

The books were selected after much thought and exploratory study. The teachers wanted most of them to serve several aims, to meet certain requirements. The principal criteria were the following:

1. The narratives would dramatize some aspect of human courage. The presentations could be muted or emphasized, implicit or explicit; but neither mawkish nor unduly melodramatic. Ideally, the presentations would seem credible.

2. A young person would be involved in the narrative, though not necessarily as the central figure.

3. The authors would be well-known, and their works would have a significant place in the literature of their country.

4. The style of most of the books — certainly of the first ones to be read — would be contemporary American; and it would be lucid. Inasmuch as the boys would be obliged to do much writing of their own, the teachers wanted them to observe and perhaps develop an ear for lucid, direct expression, In addition, it was hoped that every book would provide several passages marked by effective organization and vivid detail.

5. The books would facilitate the study of certain fundamentals of literary analysis. By reference to them, the teachers and boys could determine the nature and role of plot, setting, character and other aspects of prose fiction.

6. The authors' handling of these fundamentals would promote discussion in the classroom, as would their study of human courage.

7. The content would not be morbid. Whatever suffering there was would be elemental and natural.

8. Ideally, all or most of the books would appeal to and serve the needs of boys who had just finished the 8th, 9th and 10th grades. A single reading list for all but the most able students, who could be given additional titles, would enable the teachers to move a boy from one section to another, if the need arose, and to devote most of their time outside of class to correcting compositions and preparing exercises in sentence structure, usage and the like.

The teachers chose the following books and used them in the order given. All were paperbacks.

William Saroyan, My Name is Aram, Faber and Faber
John Steinbeck, The Pearl and The Red Pony, Compass Books, The Viking Press
Ernest Hemingway, The Old Man and the Sea, Scribners
Stephen Crane, The Red Badge of Courage, Dell Publishing Company
Homer, The Odyssey, translated by Robert Fitzgerald, Anchor Books, Doubleday
Sir William Smith, Smaller Classical Dictionary, revised by E.H. Blakeney and John Warrington, E.P.Dutton
Martin Luther King, Jr., "Letter From Birmingham Jail", Why We Can't Wait, Signet Books, The New American Library
Martin Luther King, Jr., Nobel Prize Lecture (Permission was obtained for the printing of mimeographed copies)

NOTE: One class also read William Golding's Lord of the Flies, Capricorn Books, G.P.Putnam's Sons.

The inclusion of The Odyssey in the curriculum may cause surprise, for much of the content does not seem to be credible, and the style is not really contemporary America. Despite these differences the poem was chosen with delight. The Odyssey speaks eloquently and richly to the theme of human courage; Homer holds a pre-eminent position among the world's writers; boys entering private secondary schools usually find their study of literature and history facilitated if they know something about mythology and the culture of ancient Greece; and, most important of all, the boys have liked it. (It was also used and esteemed in 1964). Several have called it the best book they have ever read, and most finished it ahead of schedule. The teachers are happy to give credit for this response to Robert Fitzgerald, the translator.

It now seems appropriate to insert remarks that the writer made about the reading in his bi-weekly reports. The comments of his colleagues are printed in the appendix.

An English Report: June 28 - July 10

READING: Saroyan, My Name Is Aram, including:
"The Summer of the Beautiful White Horse"
"The Journey to Hanford"
"The Pomegranate Trees"
"One of Our Future Posts, You Might Say"
"The Fifty-Yard Dash"

"A Nice Old-Fashioned Romance..."
"My Cousin Dikran, the Orator"
"The Presbyterian Choir Singers"
"The Circus"

Steinbeck, The Pearl
The Red Pony, read in the following order:
"The Gift"
"The Promise"
"The Great Mountains"
"The Leader of the People"

Hemingway, The Old Man and the Sea, pp. 9-46.

PROCEDURE with Saroyan: After the initial assignment of the first two stories in My Name Is Aram, the boys were assigned the next four selections and then the next three. Comprehension was checked by quizzes which tested the boys' ability to note factual details (explicit material) and to interpret significance or meaning (implicit material). For example, the following questions were asked about certain stories:

1. In "The Pomegranate Trees", what did Aram's Uncle Melik hope to create in the desert?
2. At the end of the story, why were Aram and his uncle unable to speak to each other?
3. In "The Fifty-Yard Dash", what exactly did Aram hope to learn from Lionel Strongfort?
4. In "My Cousin Dikran, the Orator", why was the Old Man upset when he was told that Dikran was the brightest boy in the school?
5. In "The Circus", why, in your opinion, did Mr. Dawson give Aram and Joey a mild strapping?

The boys were instructed to write sentences when giving their answers. In addition to noting the stories by means of quizzes, we discussed the main point of each one, commented on the characters depicted, and observed some of the devices that Saroyan uses in telling a story. We also commented on his sympathetic admiration for eccentrics, and on his humor. Lastly, every boy wrote a two page theme in which he spoke of an incident or person from his own life that was like something or someone in Saroyan.

EVALUATION: My impression is that the boys enjoyed beginning with My Name Is Aram. The boys appeared to be interested; they responded well to the pleasant tone in all of them; they were able to speak creatively about the characters and other elements.

PROCEDURE with Steinbeck's The Pearl: We read The Pearl in two assignments. The boys wrote a theme of about 300 words on one of these topics: The Effect of the Pearl on Kino's Deams or The Effect of Kino's Pearl on the Other Villagers. I used the story to introduce the boys to the fundamentals of literary analysis: setting (time, place, atmosphere), plot (sequence of incidents, foreshadowing, cause and result, climax, change of fortune, denouement), character (straight description, own words and actions, opinions of others, the author's omniscience as to inner thoughts and feelings). Every term was discussed, identified, defined by the boys; I moderated only when necessary. In addition, every term was identified and examined within The Pearl and, to a lesser extent, by references to Saroyan. Other elements discussed were suspense, symbol, and irony. Lastly, we proceeded, via discussion now steered by my questioning, to note how Steinbeck combined the principal elements in his story and how he chose vivid, accurate words.

EVALUATION: My impression is that most of the boys enjoyed reading The Pearl. I also believe that many of them benefitted from the class discussions centered on literary analysis. Certainly I had a good time, largely because several boys spoke well about the elements examined.

PROCEDURE with Steinbeck's The Red Pony: We read the four stories in pairs: "The Gift" and "The Promise"; then "The Great Mountains" and "The Leader of the People". We did three things: the boys had to write answers to two quizzes, including checks on their study of vocabulary; the boys wrote a two page theme in which they narrated an incident from their boyhood that was like one Jody experienced; we discussed "The Gift" in detail and also parts of "The Promise" and "The Leader of the People". Again, the aim of the discussion, from my point of view, was to help the boys learn to talk about a story in an analytical, perceptive manner. In doing so, they used the terms introduced in our study of The Pearl.

EVALUATION: I believe most of the boys enjoyed "The Gift" and "The Promise" very much, "The Great Mountains" to a lesser degree, and "The Leader of the People" perhaps still less. (Many liked all of the stories; but one boy told me that "The Leader of the People" bored him.) For my purposes, noted above, the stories were excellent. We could establish an introduction to literary analysis; and discussion by the boys was often both vigorous and creative.

An English Report: July 12 - July 24

READING: Hemingway, The Old Man and the Sea, pp. 47 - the end.

Crane, The Red Badge of Courage

PROCEDURE with Hemingway: We studied the novel as we did the earlier books. (See my report for June 28-July 10, which contains a detailed outline of the analyses undertaken with Saroyan and Steinbeck.) Comprehension was checked by quizzes and by the writing of two themes based on the Old Man.

EVALUATION: I believe that the novel was a good one to study for several reasons. It certainly emphasizes courage; the writing provided useful passages for the close study of language and choice of details;

the ending requires the reader to comprehend Hemingway's effort to distinguish between destruction and defeat. In other words, the boys had to read the concluding pages carefully to get much of the author's main point.

PROCEDURE with Crane: The Red Badge of Courage challenged the insight, patience, and earlier training of every boy. It was not an easy book for anyone; but it fascinated those who had the ability and the strength to study it carefully. In class we discussed Henry's development, his progress from living in a world of fantasy and self-glorification and self-doubt to living in a real world in a spirit of humility and inner strength. We also noted certain scenes or events that are important to this pattern of development. I gave no quizzes but did require the boys to write three paragraphs in class (I allowed 15 minutes for each.) The topics obliged the boys to focus on Henry and to refer to the novel for specific details.

EVALUATION: While many of the boys spoke of having difficulty with the vocabulary and Crane's techniques, I am glad I used the book. It was time for us to leave the simplicity of Hemingway and the clear plots of Steinbeck; it was time to approach the plateaus of indirection and complexity. In fact, the boys' reaction gave me a chance to speak about mature literature and the right sort of response to it. I was also able to point out that they would be expected to read books like The Red Badge at the secondary schools.

I do have a couple of suggestions for another year. Teachers using the book should probably allot more time to the actual reading than I did (three assignments). And teachers might like to speak beforehand to the subject of the book's challenge; a pep talk of sorts before the work is begun might stimulate a helpful response.

An English Report: July 26 - August 7

READING: 4th Period Class. Golding, Lord of the Flies

PROCEDURE: We read the novel more quickly than we should have, concluding our work after only three days. We concentrated on noting the meaningful relationships among the setting, plot and characters. We also pondered Golding's theme, or our interpretation of it, and related it briefly to other literary works in which the viewpoint is largely pessimistic. In addition, the boys wrote a 20 minute paragraph in class on the conch; a quiz based on principal events; and a theme of at least 500 words on an aspect of the novel that interested them.

EVALUATION: The boys were keenly interested in the story, and discussion proceeded nicely with various boys holding diverse views on certain matters of interpretation. I also welcomed the chance to speak briefly about the current fashion of pessimism and to point out the shortcomings of it. If the book is used again, it should be five days instead of only three.

READING: Both the 3rd and 4th Period Classes. Homer, The Odyssey, translated by Robert Fitzgerald.

PROCEDURE: For two successive periods I lectured on the background of the story, speaking in particular about Mycenae and other sites, the legend of Paris's judgement and meeting with Helen, the principal events in the Trojan War, and the nature of the Homeric heroes. Finally, I spoke of the bardic tradition, cited various views about the authorship of the Homeric epics, and tried to summarize the main points governing the relationship between mortals and immortals in both The Iliad and The Odyssey.

We have been reading the epic at a pace of two books per homework assignment, though on two occasions I asked the 4th Period Class to read three books in one effort. Because of the need to emphasize certain points about composition, I have had to limit discussion of the narrative to the main points like the plight of Penelope and Telemakhos, the "new" Helen, the significance of Odysseus's refusal of eternal life with Kalypso, and the importance of the motif of hospitality.

The boys are asked to write a quiz almost every day; they are required to write a 15 minute paragraph on some event or character about twice a week; and they have been assigned a theme on the plight of Telemakhos.

EVALUATION: I like everything about The Odyssey except my slighting of it in class discussions. Fitzgerald's translation is a marvel in its own right, and the boys are becoming keenly interested in the various characters and events. Because of my decision to concentrate on composition in the final weeks, we are neglecting Homer in class. The ideal schedule would give us ample time for both reading and writing.

An English Report: August 9 -- August 18

READING: Homer, The Odyssey, translated by Robert Fitzgerald, Book 20 - the end.

Martin Luther King, Jr., "Letter from Birmingham Jail", Why We Can't Wait

- - - - - - - - - - - - -, The Nobel Prize Lecture

PROCEDURE with Homer: Because of intensive work in composition, I continued to slight a daily discussion of The Odyssey. I checked the boys' effort and comprehension via occasional five-question quizzes and 15 minute paragraphs that they wrote on significant aspects of the plot and characters. At the conclusion of the reading, we did devote one period to a quick review of the ways by which Homer resolves the various strands of his plot: the plight of Penelope, the search of Telemakhos for his father, the punishment of the suitors, the effort of Odysseus to return home, and the intervention of Athena to help her favorite end his troubled journey. The discussion was particularly interesting when some of the boys argued that Homer ends his narrative too abruptly.

PROCEDURE with King: Because time was limited, the English teachers decided to read only "Letter from Birmingham Jail" and the Nobel Prize Lecture. In my own classes I tried to combine two approaches in homework assignments and class discussion: firstly, I asked the boys to understand the main points in the essays; secondly, I required them to outine each piece, indicating the organization and the ways by which King develops his assertions. We noticed, for example, that he uses facts, historical allusions, moral principles, and other generalizations. We also noted his use of metaphor and other figures of speech.

EVALUATION: Homer, as transmitted by Robert Fitzgerald, is great.

Unfortunately, I cannot give a reliable evaluation of the essays by King. At the time we read them, most of the boys were preoccupied with a dance, athletic contests, hot weather, and the ending of the Project. Moreover, given these circumstances, my approach may not have been realistic or sensible. At the present moment I would consider using the material again. King speaks eloquently to the theme of human courage, and after reading other books in which the heroes use force to achieve their ends, it is wise to study the words of a man who advocates non-violence. In the second place, the writing warrants study as writing. The boys were attentive when we commended King for managing well those very fundamentals I had emphasized throughout the summer: a lucid topic sentence, the re-statement of key ideas, the use of clarifying details, appropriate examples, and helpful transitions. Finally, the subject matter is relevant to the experience of many of the boys. Though I do not believe that this kind of close rapport is necessary in the fiction we use, it is often helpful in an essay.

An Overall Evaluation of the Reading:

As the individual evaluations have indicated, the writer definitely believes that the books selected for 1965 served several aims well. He would gladly use them again and can suggest only minor revisions. Firstly, the essays by Dr. King deserve and need more time than they could be given this year. Secondly, the teachers might want to add Edith Hamilton's Mythology for its chapters about the gods, the Trojan War, and other details that would interest readers of The Odyssey. Of course, if Mythology is selected, something on the present list will probably have to be dropped. Even without the addition of Miss Hamilton's volume, the curriculum may include too much reading; but at this time the writer does not wish to suggest which of the books should be put aside. He is fond of them all.

The final word in this section of the report has been reserved for praise of Mr. James Achterberg and Mrs. Lois Masland, who undertook to help every boy develop his reading skills and vocabulary. They also provided a number of students with corrective instruction. In this way, Mr. Achterberg and Mrs. Masland also helped the regular English teachers, who felt free to concentrate on literary analysis and composition. The Project gained much from the presence of two teachers who brought to their work interest, skill, and good cheer.

Writing and the Curriculum:

Because the students in private secondary schools must be able to write often and well, the ABC English teachers stressed composition when they were designing the curriculum. At this time they decided to make work in composition a central feature of the summer's effort: they would try to help every boy develop his skills to the point that he would be able to write creditable quizzes, paragraphs, and themes when he entered school in the fall. Toward this end the boys would be taught several fundamentals of organization, content, sentence structure, usage, diction, and punctuation. They would write every day, ideally, and they would be obliged to revise every paper in accordance with the corrections made by the teachers. The standards would be similar to those used at the secondary schools, yet the emphasis in the teachers' evaluations would be upon the strengths in a paper as well as upon the weaknesses. (In this regard, the teachers gave no grades during the summer. Instead, they wrote a brief comment on most of the papers and discussed the quality of a student's writing with him in a Faculty Appointment.) Finally, in an effort to utilize the interest, energy and skill of the Resident Tutors, the English teachers agreed to adopt a Handbook that all would use when making corrections. In this way the Resident Tutors would be able to understand exactly what their advisees' problems in writing were, and they would be able to support the teachers' efforts to correct them. Furthermore, the teachers proposed that they meet once a week with the tutors so that all could exchange viewpoints about the English curriculum and discuss ways of helping the students. (These meetings were a most rewarding innovation in the schedule. The teachers benefitted in several good ways.) Besides these semi-formal meetings, the teachers also agreed that they would contact the appropriate tutor whenever a student's work required special attention and supervised effort. (Again, this arrangement also helped the teachers and boys throughout the summer. The teachers felt no little comfort in knowing that the tutors were supporting their efforts to help the students develop their linguistic skills and their capacity for diligent study.)

These were the objectives and procedures that every teacher agreed to honor. To encourage still further unity without, it was hoped, inhibiting the individuality of each teacher, certain texts were made available. The Harbrace College Handbook (Hodges with Whitten: Harcourt, Brace and World), has already been mentioned. Also provided were A Programed Approach to Writing (Gordon, Burgard, and Yount: Ginn and Company), and Writing: Unit Lessons in Composition, Volume II B (Brown, Kowalski, Tanner, Tuohey, and Shutes: Ginn and Company). In addition, every boy received a copy of Webster's New World Dictionary, College Edition (The World Publishing Company). (It should be noted that not every teacher used A Programed Approach to Writing and that each teacher made his own selection in Writing: Unit Lessons in Composition.). In the second place, a common front was promoted by the regular use of the Detailed Summary exercise in every class. The teachers agreed that this exercise would help every boy acquire a feeling for the paragraph — a feeling for organization, relevant detail, transition, effective diction and lucid sentences. Individuality was respected by the stipulation that each teacher would prepare his own set of Summaries. Lastly, at the start of the Project, the English teachers undertook to establish common standards of grading when they met to correct and discuss four of the essays written by all of the boys on June 26. During the preceding evening the boys and staff had attended a showing of Bridge on the River Kwai. The next morning they were asked to write for an hour on one of two topics based on the movie: it was from these papers that the English teachers selected four for study. Besides helping to establish a standard of grading, the analysis of the essays enabled the teachers to itemize the types of writing they would require, the length and frequency of each type, the conditions under which the papers would be written (in class or out, timed or untimed), and the role of prompt correction and revision.

Although every teacher fulfilled all of these obligations, each proceeded in ways that suited his own experience and techniques. So the following outline should be viewed as a kind of generalization based on actual assignments and effort.

Monday:

CONFERENCE: The teacher continues his instruction in the use of subordinators. After discussing and illustrating the use of because and although, he has the boys write sentences beginning with these words. The boys read their versions aloud for evaluation.

Then the boys prepare to write a Detailed Summary. Averaging about 200 words, the passage has probably been taken from some book and edited by the teacher, who wants it to illustrate the use of effective organization, pertinent and informative details, and a lucid, contemporary style. It may also contain a couple of sentences beginning with because and although. On occasion the content may refer to the theme of human courage, to situations familiar to many of the boys (for example, the writer edited certain passages appearing in Alfred Kazin's A Walker in the City, Grove Press), or to the current reading. (The author adapted paragraphs about Odysseus appearance in Essays on THE ODYSSEY, edited by Charles H. Taylor, Jr., Indiana University Press.) The teacher reads the passage aloud three times, using a rate suitable for a lecture. The boys take notes. After the first and second readings, they may ask questions about the spelling or meaning of any word. After the third reading, they write a detailed summary of what they have heard. Unlike an exercise in writing a precis, the Detailed Summary is based on as direct an imitation as the boys can manage. The teacher wants the boys to do well, to make as few errors as possible, and to absorb, as it were, the structure and phrasing of lucid, coherent prose.

CLASS: The teacher collects the boys' corrections of the writing returned to him in Saturday's class. He then gives a quiz on the homework — two books in The Odyssey. Each of the five questions must be answered in the form of one or several sentences. Most of the boys write a total of about 100 words.

As part of their homework, the boys are asked to revise the writing that they wrote in or for class on Saturday. The principal assignment is to write a theme of at least 400 words on the plight of Penelope and Telemakhos.

Tuesday:

CLASS: The boys turn in their corrections and their themes. The teacher continues his instruction in parallel structure, and the boys continue writing sentences imitating the ones he dictates or puts on the blackboard.

Wednesday:

CONFERENCE: The teacher continues his instruction in the use of subordinators, perhaps because and although or two other ones. The boys add new sentences to their work sheets.

Before reading the new Detailed Summary, the teacher may refer to the one used on Monday if all of the boys had difficulty handling a particular construction. After this instruction, he has the boys follow the usual procedure for the next Detailed Summary.

CLASS: The boys hand in their corrections of Monday's quiz and receive the themes (corrected by the teacher) that they submitted on Tuesday. The teacher then requires them to write, in 15 minutes, a single paragraph based on some topic taken from the homework, two books of The Odyssey.

As part of their homework, the boys are asked to revise parts of Tuesday's themes.

Thursday:

CLASS: The boys turn in corrections of the Detailed Summary and themes. They receive Wednesday's paragraphs, which have been corrected by the teacher. The teacher may then resume the study of parallel structure, or he may require the boys to write for 45 minutes on a subject related to the reading. (Generally, every boy was asked to write for an entire period once a week.) Or he may initiate a discussion of The Odyssey.

As part of their homework, the boys are asked to revise parts of the paragraph written on Wednesday.

And so it goes for the rest of the week. On occasion, the subject of the theme prepared outside of class may enable the boys to write a personal essay based on their own experience. Or they may be asked to write about a play or movie they have seen at Hopkins Center as part of the overall program.

Faculty Appointments:

On most days of the week, the teachers met with individual students during the hour after lunch. (On occasion, they conferred in the evening as well.) At these times, a teacher and boy were able to discuss the boy's work in detail. The principal topic was composition.

An Evaluation of the Work in Writing:

The writer feels too close to the summer's effort to be able to present a comprehensive judgment of this aspect of the curriculum. So he will confine himself to making a few observations that he thinks he would reiterate in six months.

1. The Detailed Summary is a valuable exercise. It does help the boys develop a sense of organization, an appreciation of specific details, and an ear for lucid syntax. It also enables the teacher to control the number of errors a boy will make; this kind of control is useful if one is seeking to emphasize one or two points at a time. For instance, at the start of the summer, every teacher concentrated on helping the boys learn about sentence fragments and comma splices. The Summary provided a good battleground for the effort. In regard to content, the preparation of passages related to the reading, to the boys' experiences, and to the theme of courage seems to have been worthwhile. Indeed, the exercise appears to be one that could serve several good ends, not the least of which is the boost it can give to a boy's morale when he discovers that he can do a competent job and learn about writing in the process.

2. The task of helping boys learn to write simple exposition as well as they can write personal narrative seems to be aided by use of the Detailed Summary.

3. Ways must be found to help the boys rectify errors that they continue to make after instruction in the correct forms. The solution may lie in the type of drills that the teacher uses to "fix" the correct forms in the students' minds. Perhaps something like a Detailed Summary for particular errors might be useful. Some sort of extensive imitation seems required.

4. While parts of the Harbrace College Handbook are not appropriate for the ABC boys, the idea of the book is a sound one. The boys benefit when they are obliged to study and correct their errors carefully. It is also helpful when the teachers and resident tutors have a common reference book for some of the work in composition.

5. The writer believes that Volume B of Writing: Unit Lessons in Composition is much less effective than Volume C. The explanations in Volume C are superior in both content and expression.

6. A book like Paul Roberts' English Sentences might be useful in helping the boys learn about the sentence and its parts.

7. The assistance of the resident tutors should be encouraged. The records of several boys improved because of it. The teachers, in turn, were helped in many ways. For example, the tutors were the ones who recommended that the boys should be given information about the plays they were to see at Hopkins Center.

8. The Faculty Appointment is a valuable part of the daily schedule. It enables a teacher and his students to work on certain problems in a quiet, purposeful way.

Special Events:

During the summer the boys and faculty were fortunate to see three plays performed by an excellent company. Staged in Hopkins Center, the plays were Richard II, Tartuffe, and The Doctor's Dilemma. At the suggestion of the resident tutors, the English teachers prepared their classes for the first two plays by giving background information and noting certain aspects of character and plot. For the third play no information was provided: the boys were put on their own. The plays were a great success. The boys enjoyed seeing them, and it was fun to discuss them in class. (Remarks about Richard II sometimes bore on the theme of human courage and weakness.) The boys also saw four movies that had been selected to supplement the reading and its focus on courage. The films were Bridge on the River Kwai, The Old Man and the Sea, The Miracle Worker, and Inherit the Wind. (Billy Budd was also ordered, but it was lost in shipment.) In August Messieurs Bradley and Swarney lectured informally on The Odyssey and related material.

An Evaluation:

There is no question about the value of the plays. Seeing them was an important and memorable experience for the boys. For many Hopkins Center provided an introduction to the legitimate theatre; and everyone enjoyed the opportunity to observe excellent acting and effective staging. The writer is less sure about the value of the movies. He is not satisfied that the merits of each film and its relevance to the theme of courage offset the loss of a homework assignment in composition or reading. For that was the way by which the boys acquired the time to attend the plays and movies. In a session of only eight weeks, this kind of exchange becomes significant when it takes place as often as eight times. Perhaps a wise move for another year would be limit the number of outings to five, or allow eight but cancel athletics to obtain time for half of them. An occasional lecture on reading like The Odyssey should probably be scheduled. Ideally, a speaker's comments (and slides if he has them) would supplement the work being done in the classroom.

In writing this final evaluation of the curriculum, the writer has reserved the place of greatest importance for a statement about his colleagues -- Mr. Richard Brown, Mr. Albert Clough, and Miss Carrie Robinson. They are three of the most dedicated teachers it has been his privilege to know. Deeply interested in the needs and aspirations of their students and determined to help in every way they could, they gave themselves without reservation to a rigorous curriculum and schedule. For them he feels a very special affection and respect.

John Lincoln
English Co-ordinator

A Report on the Reading Program

There were two major objectives of the Dartmouth ABC Reading Program. First, it was the desire of the administration and staff to reach all 80 boys with a developmental study skill program. Secondly, it was hoped that the average and poor readers could be tested diagnostically and grouped into small classes for more intensive corrective and remedial instruction.

The initial testing used for general screening and sectioning was the Diagnostic Reading Test (Survey Section). The Educational Records Bureau kindly aided the staff and furnished independent school percentile norms. There were three general categories in the initial sectioning; good readers, average readers, and poor readers. The 80 boys were sectioned into ten reading classes with the two instructors handling five classes each. The size of the average class was eight; there were three sections of poor readers, one section of good readers, and six sections of average readers.

The first three weeks of the summer program was developmental in nature. Major objectives of the classes were vocabulary development, study skills, reading comprehension, and reading rate. A limited amount of time was spent on such skills as outlining, notetaking, skimming, phrase reading, reading in content areas, and preparing for and taking examinations. All students were given three hours of homework per week in a vocabulary workbook and were required to submit at least ten 3" by 5" index cards with new words acquired outside the reading class.

After fifteen hours of reading instruction for all boys, 33 boys were dropped from the regular reading class schedule for two basic reasons. First of all, more time and fewer students per class was desired for the very poor to below average readers. Intensive reading instruction could be facilitated only by reducing the instructional load. Secondly, a number of students were good to excellent readers upon arrival at Dartmouth, and after a short developmental study skill course, could best profit from developmental instruction in the English classroom

The boys dropped from the regular reading class schedule met with instructors once or twice per week for the remainder of the summer program. Their homework assignments were increased with the emphasis being on vocabulary improvement.

Forty-seven boys continued in their regularly scheduled classes for the remainder of the summer. They received a total of 40 hours of instruction. The emphasis in the final five weeks was reading comprehension (both fictional and non-fictional), organization, outlining, rapid reading, and reading history and science chapters. The classes contained from three to six students. There was opportunity to work with individual students in an intensive manner.

Every Wednesday the reading instructors were free to work with youngsters individually. This time was used either for tutoring or for diagnostic testing. By the end of the summer the instructors had administered fifteen Wechsler intelligence tests, twenty-five Informal Reading Inventories, and a number of other individual measures such as word recognition and spelling tests. The purpose of the diagnostic testing was to aid the instructors in working with the students, and to have a more comprehensive picture of the strengths, weaknesses, and specific needs of the readers. It was hoped that careful evaluation of the very poor readers would aid the instructors in their final reports on certain individual students headed for preparatory school. Many students needed much more attention in reading following the summer program. Careful reading evaluation was designed to spell out in detail the strengths, weaknesses, and recommendations for further instruction at preparatory schools.

It appears that the developmental portion (first three weeks) of the summer reading program worked rather well. There was plenty of time to cover essential skills and review. At the same time the 33 good readers did not need further work in the regular reading classroom.

Many of the less able readers profited from the more intensive reading instruction in the latter five weeks of the program. The boys with reading deficiencies of a less complex nature seemed to profit most in the small classroom situation. Each individual student could work almost independently on his specific weakness; reading speed, factual recall, or main ideas.

Boys with more complex and serious reading deficiencies (there were eight) could not receive instruction that could have best served their needs. Some boys should have been tutored on a regular basis, five times per week, for most of the summer. There was not the time or the instructor available for such an intensive and ideal reading program.

It seems that the summer reading program was generally successful. There are some recommendations for next year that could improve the quality of the program.

SCHEDULING:

A third reading specialist would be advantageous to the reading program. The additional reading specialist could devote half time to the ABC Teacher Institute for seminars, and so forth. Half time could be devoted to the ABC students. Individual diagnostic testing and tutoring for serious reading disabilities could then begin during the first week of the program rather than after the summer is half over. A third reading specialist would also alleviate the heavy burden of 40 students for each of the remaining two teachers. All 80 students would benefit.

There should be no regular classes in the afternoon. This time could be used for faculty appointments and individual testing and tutoring. The five period proposal by the faculty should neatly take care of this request.

With the addition of a third reading specialist, it would be recommended that all 80 boys be retained on a full reading schedule throughout the summer. The superior students could work increasingly independently, while stressing individualized instruction with the less able readers.

It may be advantageous to have a large class (fifteen boys) twice a week to introduce new skills combined with three or four smaller classes of five to seven boys for individualized help and practice on skills introduced.

It is suggested that the reading teachers be a unit unto themselves with a reading coordinator for organizational and administrative purposes. It is difficult to function when there is no clear link between a discipline and the administration. Although the reading teachers were officially linked to the English department this year, the reading teachers could have functioned more successfully if they had had a direct connection with the administration.

TESTING:

It appears that the testing this year has been basically adequate. Next year the reading teachers might consider using the Informal Reading Inventory ninth reader level (read silently) at the time of individual conferences during the first week. The I.R.I. testing would help the teachers with early diagnostic data.

MATERIALS:

The materials used most successfully this summer were Better Work Habits by Salisbury, Toward Reading Comprehension by Sherbourne, The Reader's Digest Advanced Reading Skill Builder series, and Be A Better Reader by Smith.

It is suggested that Effective Study Skills by Downes be eliminated from the program. This workbook proved very ineffective. Vocabulary for the College Bound Student by Levine was not successful as might be expected. It is believed that a better vocabulary workbook can be found and it seems necessary to have an easier vocabulary book for the less able student.

James E. Achterberg
Reading Co-ordinator

A Report on the Mathematics Program

With the exception of one boy, it was possible as in 1964 to put all the boys into two levels of mathematics. One was called pre-algebra and was designed to offer a strong foundation for the introductory course in algebra at preparatory school in September. The other was a review and extension of what is usually called a first course in algebra.

The one boy who could not be put into these two categories came to ABC with a background which included all the traditional high school mathematics and some knowledge of calculus. Testing done here showed a weakness in complex numbers so his program for the summer began with that topic. This boy worked in a tutoring situation with a teacher connected with the affiliated Teacher Institute. He was able to do a considerable amount of work in complex numbers, logic, matrix algebra and vectors. Obviously this boy was not typical of ABC and would probably have benefited more from a summer program at a college like Harvard or Dartmouth. Once he had begun the summer here, however, and it became clear how good he was, there was no possibility of a change.

On the first day every boy was given an arithmetic test to determine the strength of his background. The test is in the Appendix. We had intended to forbid any boy from taking the algebra test if his score was low in arithmetic. We changed our mind however, and again permitted any boy to take the algebra test if he had had any contact at all with algebra regardless of his arithmetic test score. It seemed as though nothing would be gained by not allowing him to take the test and that he might be able to indicate considerable knowledge of algebra though the arithmetic score was low.

On the second day we gave two tests. The algebra test is in the Appendix along with Test III which was given to those boys who had no algebra background. This last test was not graded. The test questions were designed to lead the student to ideas which would be presented later in the pre-algebra course.

There were more boys this year than last who were not permitted to take the algebra course because their score on the diagnostic test was too low. Last summer too much was expected of a boy who had a poor background and marginal ability when he was asked to try to learn a full year of algebra in eight weeks. More can be accomplished in the long run if he is given a strong preparation for algebra and then allowed to take that course in his preparatory school.

It is significant to note that five pre-algebra and two algebra classes were formed this summer while last summer there were four algebra and two pre-algebra classes. This difference is a reflection of the younger age group this summer and of our reluctance to allow a boy to try the algebra course when his experience in that course appeared questionable as measured by our test.

On the basis of the test results we tried to place the stronger algebra students in one class. This worked out well but we did not attempt any changes during the summer when it appeared as though one of the boys was misplaced. In the better class it was possible for the instructor to assume that the boys knew some of the basic material sufficiently well for him to pass it quickly. As a result he was able to cover the year's material at a better pace. The instructor in the slower class was unable to make such an assumption and so had difficulty finishing the course outline satisfactorily.

No attempt was made at homogeneous grouping in the pre-algebra classes although we did notice three weeks into the program that one of the sections had more than its share of slower students. At the end of a two-week period the possibility of grouping the strong students into one class was discussed. It would have been possible to group the strongest students into one class, the weakest into another and the others would make up the three remaining classes. We decided against any such changes, however, because we did not believe enough more could be done for the very able students to make the shift profit-

More important, we thought, was the fact that the weak and mediocre students would profit from the presence of the able boy. At the end of the program we were satisfied that we had made the right decision. It seemed as though the others gained confidence when they saw how the stronger boys could perform in a challenging situation. While grouping is necessary in algebra to help cover the vast amount of material, we recommend against it in the pre-algebra course.

The same two textbooks were used this summer as were used last year. Again the teachers were enthusiastic about INTRODUCTION TO MATHEMATICS by Brumfiel, Eicholz and Shanks as that book is used in the pre-algebra course. We recommend that it be used again for the pre-algebra classes. It was decided that all algebra students should also have this book but there was so little time to use an extra text that we do not recommend that the algebra students have it next year. The algebra text by Johnson, Lindsey and Sleznick, MODERN ALGEBRA - A FIRST COURSE proved to be satisfactory again and we recommend its use another year. None of the boys used this text in their algebra course before coming to us and the book has so many interesting exercises which allow the student to go beyond any algebra experience he may have had. These two reasons make this book worthy of strong consideration for a program like this one.

The largest math class this summer had 14 boys while the smallest had 9. We agree that 12 is the optimum size for our purposes. Each boy again met his class six times a week at its full size then came back for what was called a problem-solving session three times a week. We tried to keep the problem-solving session at about half the size of the class but this became impossible in some cases. There was some feeling for meeting the class as a unit for two consecutive periods but most instructors preferred the problem-solving sessions with half the number of students. Often these sessions were conducted with the boys all at the blackboard working problems under the guidance of the instructor. We agree that every attempt should be made to keep these groups small to allow for individual work of that sort.

The instructors taught four periods per morning six days a week and were available for conferences with their students for a one-hour period after lunch. We believe that instructors should have some relief from this close schedule of teaching. While we agree that the work does not present a hardship and that some teachers work harder during the school year, this schedule leaves little time between classes during which the teacher might reflect upon the last class, make changes in preparation for the next class or discuss what he is doing with other members of the faculty.

The kind of teaching done here is different from that done by the members of the math faculty during the school year. Some thought must be given to the differences and to the resulting differences dictated in materials and techniques. It may be necessary to prepare materials which will meet the different challenges faced by the teachers here. The teacher may be guilty of trying to adapt his materials and techniques to this situation because he has not the time to think about the changes that would be necessary. For all this the teacher needs time and therefore relief from the four-hour morning and five-hour teaching day.

There was some feeling that the pre-algebra course might have been directed too heavily at so-called modern concepts of mathematics. This may be reflected in the obvious differences which exist in the diagnostic test given as an arithmetic test and the final examination given to those boys who will go on to algebra next year. We recognize the fact that the ABC boy will probably have a weak background in the modern aspects of mathematics because of the nature of his environment. He will, therefore, suffer in competition with the kind of boy who has been well prepared for the mathematics of the preparatory school. We also recognize the fact that the ABC boy will be weak in the basic manipulation of numbers. We concluded that we must present new material in the pre-algebra course and try to stimulate interest and enthusiasm for mathematics. We also believe that this course must introduce the student to generalizations and abstractions. The mathematics which is sometimes called modern can do both of these but it also provides a vehicle with which the teacher can improve basic arithmetic skills. It is for these three reasons that we choose to organize the pre-algebra course around the material found in the textbook which we have used for two summers.

There was also some concern expressed for the fact that we may still be attempting too great a coverage in the algebra course. If we try too much and are finding ourselves rushed, the boys might be only a little better prepared than when we began. The class which was made up of the better algebra students was able to complete the program in a satisfactory fashion because that teacher was able to assume some skill on the part of the boys. The ABC program in algebra must continue to live with this problem unless a decision is made to take only those boys who have completed the eighth grade. Boys taken before they have had the algebra experience have a better chance of catching up to their competitors in the preparatory schools. It becomes exceedingly difficult to foresee successful competition with preparatory school students when there is two or more years of poor high school mathematics in the background of the ABC boys.

During the summer only one boy changed mathematics teachers. Though he was a weak student to begin with and did poorly throughout the summer, we think it regrettable that this change was necessary. We believe now that changes of this sort can be dangerous and recommend that each boy stay with one teacher throughout the eight-week period. The teacher just begins to know the boy after three weeks and it is only during the last weeks of the session that real help can be offered to the boy.

On the whole there were fewer problems this summer. The placement according to test scores and other information worked well. Several boys in pre-algebra did ask to be transferred to algebra but the end results indicated that the boys were correctly placed. Those who did poorly in algebra showed low scores on the diagnostic tests but for differing reasons were permitted to try the algebra. We believe these decisions were correct though their final test scores were low.

There must be serious consideration given to the fact that 7 boys were not recommended to go on in mathematics. We believe this high number is a reflection of poor training and our inability to rectify this in a period of eight weeks. We recommended that the schools try to make allowances for this and take the boys on at a lower level if possible or try to offer some form of remedial help in the first year of mathematics. We hope that the lack of recommendation in this one area will not keep the boy from progressing although we recognize the serious nature of our recommendation.

Again, as last summer, we believe the ABC boys are better prepared to meet the competition of the preparatory school. There has been a significant increase in their knowledge of the mathematical concepts which are often called modern. We believe the boys have been taught in a way that has stimulated them to think about what they are doing and therefore to understand the material more clearly than before the summer began. This kind of teaching is more likely here because of the small classes, more concentrated efforts and the help of the resident tutors.

Our concern, however, must be directed at what more can be done. It is for this reason that a reduced teaching load is suggested for next summer. When a teacher looks back on eight weeks of work he is tempted to believe that he has taught too mechanically again and has missed the opportunities to be more effective with his boys. Opportunities to teach, stimulate and develop will be met more consistently during the summer if the instructor is given more time to reflect and to discuss.

Thomas M. Mikula
Mathematics Co-ordinator

Activities

Not all of a boy's waking hours were taken up with instruction or study: a wide variety of activities occupied his time, to the refreshment of body, mind and soul.

Meals were taken in the college dining hall; breakfast and lunch were cafeteria style, in company with all Dartmouth summer students, while the evening meal involved table service in a separate room (the boys took turns as waiters) and a measure of formality, if not elegance, like that of most preparatory schools. Meal time conversations were enlivened by guests from Hanover and out of town whose competences and interests made them specially welcome.

Sports were, of course, a daily activity; the boys were given opportunities to develop their skills in soccer, track and field events, softball, volleyball, touch football, tennis. Swimming was given first priority, and by the end of the summer even the least bouyant youngster was able to keep his head above water. Coaching duties were shared by the College's professional staff and the Project's devoted resident tutors.

ABC fielded softball and soccer teams which played against other summer groups at Dartmouth (such as the Peace Corps trainees) and Hanover High School.

As in the summer of 1964, rock climbing attracted a surprising number of boys, providing the special excitement, challenge and pride in individual success peculiar to that unique pursuit.

Weekends provided welcome and necessary changes of pace and routine, with trips planned by imaginative resident tutors ranging from Mount Washington's summit and the Maine seacoast to the sights of Montreal and Boston. The last one was exciting indeed: the girls of Mount Holyoke's ABC program came to Hanover for a twenty-four hour visit marked by a matinee (Moliere's Tartuffe) staged by the Dartmouth Repertory Theater company, a songfest, and a dance. The entire affair was planned and organized by a committee of students, with minimal help from tutors, thus being at once a climactic social event for all, and an important exercise in responsibility.

The facilities of the Hopkins Center for the creative and performing arts were open to ABC students, who in their free time were able to see visiting artists at work, savor the contents of the galleries, listen to rehearsals of musical groups, and socialize with students of Dartmouth's regular summer session. In addition to the plays and movies which were made part of the academic program in English, a surprising number elected to attend concerts by the Dartmouth Community Symphony featuring the music of resident composers (Kodaly, Krenek, Finney).

With the help and guidance of resident tutors, the students formed a glee club and staged a play; both groups performed before an enthusiastic audience of their ABC comrades, faculty, Dartmouth friends and townspeople on the final night of the summer adventure — and by the spontaneity of applause were made to feel the warmth ofgenuine friendship and admiration which their presence on the Hanover scene had evolved.

The religious life of the students was neither neglected nor "managed". Sundays found the boys at local churches, according to their choices and memberships, where they were welcomed and made to feel at home. For Catholics who might be absent on trips on Sunday mornings a special mass was held in the afternoon. ABC boys served in the Holy Communion services at the Episcopal church. The Project's one Seventh Day Adventist (excused from Saturday classes) was driven to a neighboring town where his church fulfilled his special needs. And at 5:15 every Sunday afternoon all the boys gathered in the Bema, a strikingly beautiful woodland setting, together with faculty and tutors, for a non-denominational meeting at which music, readings from scripture, and short talks by friends of ABC brought a sense of unity and tranquility to the closing hours of the day.

Medical

The Dartmouth College Health Service and the Mary Hitchcock Clinic in Hanover handled all our health problems. Medical history and X-ray reports, sent in before the boys' arrival, were on file at the infirmary from the first day's physical examinations to subsequent mishaps; occasional broken bones, sprains, sore throats. The College infirmary provided speech therapy for those students who needed special assistance. Eye appointments were made for several boys, and three of them were fitted with glasses for the first time in their lives.

In one case we relied heavily on the College psychiatrist. A likeable, gentle-natured lad refused the food provided by the dining hall and apparently spent his weekly allowance on soft drinks, potato chips and candy. At the dinner table he became a source of ridicule by his fellow students and of increasing concern to the adults. After laboratory tests he was confined to the infirmary for a short period, during which interviews revealed that in his home environment he had been permitted to eat what he chose — and his choices were limited to chicken, potato chips and soda pop — where he chose, often in front of the t.v. set and away from the family. What had originated as a seemingly harmless routine had become a deeply rooted habit with all the characteristics of addiction; the boy was no longer able to tolerate everyday foods and, indeed, he had lost all sense of taste or desire to experiment with it. The psychiatrist recommended that the staff and faculty put as little pressure as possible on the boy at mealtimes, feeling that he must wrestle with the problem on his own. Our new understanding of this boy's case was not enough, unfortunately, to enable us to recommend him to preparatory school, for the nature of his problem would have required excessive strain on both the boy and the school; but we hope there will be follow-up treatment at home and a new direction taken in this boy's daily pattern of life.

One other boy found it impossible to adjust to the ABC regimen; the psychiatrist recommended he be sent home. He was accompanied on the trip by the Associate Director, who talked at length with his mother and was able to allay her fears; ABC was later able to arrange for this boy to receive professional counseling and a challenging summer job. We are still receiving letters from the boy and his mother, full of news of his activities.

With the exception of these two cases, professional counselling was used only as an aid to the tutors who, in turn, "counselled" their own students on day-to-day problems. A clinical psychologist met with the tutors once a week, and at that time they discussed student difficulties and ways of dealing with them. We feel that eight students per tutor should be a maximum and that it is adequate for anything less than disruptive psychological problems.

On the whole, our experience with medical problems has been good, thanks to the energy and good health the boys brought with them, and to the availability of first-rate clinicians when trouble arose.

Financial

The second installment on our three-year $150,000 grant from the Rockefeller Foundation, financial assistance from the Office of Economic Opportunity and administrative and plant contribution by the Dartmouth Trustees enabled us to finance the second year of Project ABC.

ABC Report 1964 outlined major direct costs for the eight-week summer program. That brief financial statement included neither indirect costs nor September to June expenses. Whereas a rough $1000 per student cost was shown, a subsequent complete cost analysis (including all indirect costs) indicates a calendar year per student cost of $1800 in 1964, $1500 in 1965 and $1650 in 1966. The 1966 increase will be due primarily to higher room and board costs. The following figures show expenses and income for the three years, actual for 1964, anticipated for 1965, projected for 1966:

	1964 Actual (55 boys)	1965 Anticipated (82 boys)	1966 Projected (80 boys)
Expenses			
Participant Support	$25,815	$31,000	$34,320
Instructional	24,720	38,800	42,188
Administrative	24,477	26,800	27,177
Indirect	24,479	28,400	28,838
Total	99,491	125,000	132,523
Cost per student	1,809	1,524	1,657
Income			
Rockefeller Foundation	50,000	50,000	50,000
Office of Economic Opportunity	------	32,000	36,000
Enrollment Fees	765	1,070	1,200
Miscellaneous Gifts	------	1,625	2,000
Total Outside Support	50,765	84,695	89,200
Dartmouth Participation	48,726	40,305	43,323
Total	99,491	125,000	132,523

It is important to understand that ABC is not enrichment or one summer of happiness. It is preparation for extreme social and academic change inherent in the transition from ghetto to preparatory school. Unless this is understood, there is the danger of falsely comparing ABC costs with those of other summer programs for disadvantaged students. Two years of labor and untold hours of struggling to economize have persuaded us fully that we have pared our expenses to absolute essentials. The fiscal knife can be wielded further only at the risk of damaging the heart of the program.

Community Relations

As was true a year ago, there were friends of the Project in Hanover whose contributions were varied and valuable. Many of the weekend trips to New Hampshire's unspoiled wilderness areas, mountains and lakes would have been impossible without the automobiles loaned by Hanover families. Members of Dartmouth's faculty came to dinner with the students as invited guests, talked with interested boys about their special interests and aspirations, made new friendships. Community residents readily became involved with ABC where they found it natural, mutually rewarding.

Main Street's reception was normal, warm, unstudied; the community swimming pool was a benison during the worst week-long heat wave in years; a local artist of considerable stature talked to the boys on painting as a means of communication with remarkable effect; one of the College's classicists brought ancient Greece alive with words and pictures; the church's doors were always open.

Fortunately for the students there was giving as well as taking. Through one of the resident tutors the plight of an eighty-year-old crippled farmer in nearby Orford became known. George R. lost his right elbow in an accident, so that his forearm is held only by muscles. He and his wife had no water in their house. Every day he had to go down a steep slope to a spring and draw water in a pail. An organized move to help resulted: on four successive weekends and on free Wednesday afternoons teams of ABC boys devoted themselves to digging a new well and a long trench for a pipe to connect well and house. Someone contributed the necessary pump, and at summer's end the grateful couple could, for the first time, look forward to a winter free of their most taxing drudgery.

In future years we hope to find the Project involved in more giving; the importance and satisfactions of service to others must not be lost on our students. Perhaps more opportunities to contribute in neighborly fashion by physical labor will be found; perhaps there can be some form of service in conjunction with Operation Head Start in nearby White River Junction. Whatever it turns out to be, our hope is that the experience of service will parallel the experience of learning, bringing with it growth of the highest and best kind.

Resource Persons

It would be hard to overestimate the importance and value of "resource persons". How this term was originally coined isn't certain. It is used to describe those individuals who act as counselors to ABC students in their home cities, helping the boys and their families prepare for the summer and preparatory school. This may become a many-sided commitment: helping the boy and his parents with applications; encouraging them when a ten-thousand dollar education seems wholly out of reach, if not absurd; dealing tactfully with problems of material need where the home situation borders on destitution; keeping in close touch with the boy, his family, the Independent Schools Field Representative, the public and preparatory schools, and ABC — providing invaluable liaison between all concerned in what may on occasion be emotion-packed problems and solutions.

Resource persons may be professional men and women, teachers, social workers, ministers, business men. Not a few are school guidance counselors. We never cease to wonder at the dedication with which one of our corps, counselor in a Southern high school, "discovers" able and promising youngsters, infuses them with a new sense of hope and determination, sticks with them in the inevitable moments of frustration and discouragement, and provides, on the home scene, a ready source of help and guidance while her boys and girls are climbing from the rut of apathy into new worlds of achievement, optimism and self-respect.

The job isn't finished with a boy's admission to preparatory school, but ideally continues until his successful emergence into independent adulthood. Last winter Robert P——'s mother wrote us that she and her eight-child family were to be evicted from their home for delinquency in the payment of rent. The father is dead. Her son, who had been one of our 1964 triumphs, had threatened to abandon preparatory school, where he had been prospering, to return home to support his mother at this critical juncture in their life. The mother was unemployed, desperate.

A call to Robert's resource person turned the tide of misfortune. A job was found, a landlord placated, a court order rescinded, a payment schedule established, and Robert felt free to continue the excellent work he was accomplishing at B—— Academy; what had threatened to stymie, perhaps wreck, the efforts of the boy and all his well-wishers metamorphosed into an interlude of concern, compassion, action — and a happy ending. Other equally poignant episodes could be adduced to support our conviction that the resource person is a crucial link in the chain of involved individuals and institutions — a ready source of routine or emergency help without which we should sometimes be lost.

The Bedford-Stuyvesant area of Brooklyn teems with America's poor. Among them are children for whom the hope of advancement lies only in the help of thoughtful, concerned and action-minded friends. Visible evidence that there are indeed those who care is provided by the development of the Stuyford Action Council, a group of citizens brought together to give boys and girls a boost, to extricate them from backgrounds of depression and despair, and send them into surroundings which promise a better chance. The Council has constantly and successfully sought to uncover youngsters who justify the best hope of such emergence, and through its efforts, sparked by Garvey Clarke, a not insignificant number of boys have been encouraged, guided, and "delivered" into ABC, fine independent schools, and, if the fates are kind, college and the good life. (Garvey Clarke is a successful young attorney, Dartmouth alumnus, and spirited citizen who has recently accepted the position of Associate Director for Development for the Independent Schools Talent Search Program).

Each year the knowledge of new opportunities spreads in the community of the invisible indigent. And in a considerable number of cities and towns, North, South, East and West, the story of the independent schools and ABC is making headway; civic organizations, churches, schools relay the word, resource persons rise to the challenge, and young lives are changed.

Reports to Schools

At the final joint meeting of Faculty and Resident Tutors it was necessary to face the sometimes agonizing question whether a boy whould be recommended to preparatory school.

There was a clear majority whose performance throughout the program was so steady, and whose growth was so apparent, that the issue was never in serious question. And there were a few (five) whose likelihood of successful transplantation was so doubtful that there was no alternative to telling the schools frankly that admission would be a mistake — a disservice to the institution and the boy. But between these categories stood a third group — a pretty large one too — who were recommended, but whose prospects for success were clouded by academic weaknesses of considerable import or by the staff's nagging doubts about their possession of the degree of stability, maturity, and motivation needed to make a go of it in a literally new world.

These reservations, spme of them grave indeed, were expressed in our letters to the independent schools (see Appendix F). We "levelled" with the schools not only because of a respect for candor but because a knowledge of a boy's weaknesses — from the start — was clearly essential to an intelligent and humane approach by school administrators and teachers when, at the moment of truth, the boy was to grapple with new subject matter, new competition, new surroundings, new demands of every kind.

That the seventy-four boys recommended and admitted to preparatory school all survive at present writing gives us hope that the schools' gambling, and ours, is of the sort which productive life requires and indeed makes worthwhile.

Evaluation of Project ABC —A Note on Research in Progress

Shortly after initiating Project ABC, Dartmouth College and the Independent Schools Talent Search Program recognized the need for careful and objective evaluation of the long-term results of this unusual and important scholarship program in order to assess the educational, personal and social consequences. However desirable the goals of Project ABC may be in the abstract, responsible individuals could not be involved in a project of such magnitude without serious questions concerning its results. The lives of these underprivileged boys are being greatly altered — they are moved from urban slums and depressed rural areas to the very different world of the preparatory schools with greatly altered social climates, values and academic demands. Certainly these educational and social changes would appear to offer great opportunity — but they must also subject the boys to enormous personal challenges and stress. What happens to a talented boy from the slums when he is moved to a boarding school; what has he gained and at what price? Those involved in the program must be concerned with both the immediate and long range consequences of such transitions.

Last summer (1964) with the support of the Filene Endowment, some study was made of the first group of ABC students at the Dartmouth summer program, and a research program was designed for more intensive study and follow-up of later groups. This five-year research project is now supported by a grant of $160,000 from the Cooperative Research Branch of the U.S. Office of Education. Besides this substantial government support of the direct research costs, the research project has received and will require the varied and significant contributions of all the partners in the ISTSP enterprise: the resource people in the field, the ISTSP staff, the ABC administrative and teaching staffs, the Dartmouth academic community, the faculties and administrations of the participating independent schools, and the ABC students themselves. Thus far, all have shown a heartening willingness to make possible a genuinely meaningful study.

Our five-year study of the educational careers of the ABC students has the following three major areas of concern: (1) Determinants and correlates of success and failure. We want to know who profits from the program and who does not. Intelligence and ability should play a large part, but we suspect certain motivational factors, charactertraits, and background factors will also prove of great significance. (2) Educational accomplishments. We want to know how much actually is accomplished in terms of academic gains and educational achievements. We want to see whether ABC students do, in fact, become more proficient scholastically and go on to college in greater numbers than their peers who did not have such opportunities. (3) Personal and social changes. We want to know what changes may occur in personality, self-conception, interests, attitudes and values. We expect that the aspirations and motivations of most of these students will be raised, and we hope for positive changes in personality. However, there is a distinct possibility that there may be problems and unfortunate developments. We want to know how these students come to differ from their fellows.

This evaluation research requires careful keeping of detailed records and a program of standardized observation, testing and interviewing. Included are: achievement tests in English; intelligence testing, including traditional and "culture fair" tests; standardized personality inventories, attitude and interest questionnaires; systematic ratings of student behavior and performance by teachers, resident tutors and staff; and follow-up studies and interviews regarding the overall effects of the program. Selected aspects of the testing and data collection will be carried out with a matched control group so important comparisons may be made.

Because of our interest in the long-term educational and personal consequences of the ABC scholarship program, a considerable amount of our assessment will involve before-and-after testing to assess change. The initial testing is being done at the time the students apply to the program and during the ABC summer program at Dartmouth; the follow-up testing will be done after two years experience in the preparatory schools. As the students are of different ages and grade levels at the time of entrance to the schools, it seems best to take a uniform two-year exposure to the independent schools as our period for assessing change, rather than other alternatives. Over the extended period of the initial ABC summer experience and two academic years in the preparatory schools we would expect the academic gains and personal changes to begin to become manifest. However, we also intend to follow the subsequent careers of the students to the point of college entrance, and beyond — if time permits. We should note that while educational and psychological tests are useful "objective" measures, throughout the study we must be concerned with aspects that are not readily gauged. Here is where we must listen and learn from those who have been the intimate observers and active participants. Their testimony will be our most important data.

The Independent Schools Talent Search Program and Project ABC are important ventures of long-term significance for our society. Hopefully, our research will give some initial indications of what the consequences may be.

Alden E. Wessman, Ph.D.
Research Director, Project ABC

Concluding Observations

Project ABC was conceived as an educational program, not an agency for social change. The objective has been and continues to be the cultivation of thought and expression so that each youngster will have a little more elbow room to make his way. Yet, inevitably, the program has impact beyond the formal education of the students immediately affected, Puerto Rican, Chinese, Indian, Negro and white. Out of the association and dialogue between formerly separate individuals and institutions comes experience with integration. Sharing is the heart of this experience and sharing gives each participant — student, teacher, tutor, administrator — a greater stake in honest integration. Through significant sharing, John Jones the Negro becomes Johnny. In Johnny, his friends and mentors have a stake. Only to the extent that large numbers of individual Americans develop such a stake will we move beyond Civil Rights legislation and the letter of the law.

It is often said that private schools are exclusive, that they exist to educate the priviledged. Historically this view is not without substance and even today, levelled at many private institutions, this assertion is accurate. The same criticism, however, can be made of those public schools which serve only high income, homogeneous neighborhoods. Children in these schools are no closer to diversity than are their counterparts in preparatory school. For public schools the problem of broadening the base may be geographic — for private schools, financial. Neither offers easy solution. Nevertheless, I think it imperative that both earnestly struggle to serve broader constituencies. Thoughtful parents increasingly will want their children to have school experiences which will prepare them to function relevantly and productively as adults in a diverse world. Without such experience, graduates of either type school may be woefully unprepared to grapple with the Twenty-First Century. And indeed, in a society beset by tendencies toward sameness and uniformity, not only must we seek diversity and cherish differences, but we must also recognize our minority groups as the leaven which may well spare us an Orwellian epilogue.

APPENDICES

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Appendix A

Family Profile

	Father's Education	Father's Occupation	Mother's Education	Mother's Occupation	Marital Status	Dependent Children	Family Income
1.	12	Unemployed	15	Waitress	Separated	1	$3,700
2.	12	Deceased	8	Merchandiser	Widow	1	1,782
3.	?	Unknown	8	Housewife	Separated	1	Welfare
4.	9	-------	9	Nurses Training	Separated	1	Welfare
5.	11	Taxi Driver	12	Housewife	Together	2	4,830
6.	8	Rancher	12	Housewife	Together	2	7,000
7.	MD	Deceased	BS	Teacher	Widow	3	3,843
8.	7	Foundry Worker	12	Housewife	Together	2	4,997
9.	Tech. Degree	Deceased	12	IBM Operator	Widow	2	4,942
10.	---	Porter	--	Worker	Together	4	6,328
11.	11	Sheriff	12	Housewife	Together	5	3,648
12.	9	Barber	7	Maid	Together	2	3,275
13.	12	Chef	12	Housewife	Separated	5	Welfare
14.	11	Taxi Driver	15	Laboratory Worker	Together	2	8,800
15.	---	Unemployed	--	Unemployed	Together	7	-----
16.	Unknown	Unknown	--	Unemployed	Separated	3	Welfare
17.	STM	Clergyman	12	Housewife	Together	4	5,000
18.	---	Store Owner	--	Store Owner	Together	4	6,760
19.	12	Secretary	--	Deceased	Step-Mother	4	5,300
20.	---	Deceased	--	Unemployed	Widow	4	2,664
21.	9	Laborer	9	Housewife	Together	7	4,223
22.	12	Taxi Driver	3	Operator	Together	1	6,000
23.	---	Deceased	10	Domestic	Widow	1	2,091
24.	10	Mill Worker	11	Kitchen Help	Together	3	5,150

Appendix A

	Father's Education	Father's Occupation	Mother's Education	Mother's Occupation	Marital Status	Dependent Children	Family Income
25.	LLB	Deceased	BS	Teacher	Widow	2	$7,290
26.	13	Factory Worker	--	Housewife	Together	5	5,000
27.	12	------	11	Cleaner	Divorced	6	2,250
28.	--	Warehouse Worker	--	Sales Lady	Together	2	6,805
29.	8	Mail Handler	8	Cleaner	Together	4	7,508
30.	7	Roofer	7	Housewife	Together	4	3,842
31.	11	Mail Handler	12	Housewife	Together	2	2,200
32.	--	---	11	Matron	Step-Father	3	5,440
33.	BS	Employment	14	Housewife	Together	2	4,900
34.	10	Driving School Teacher	--	Nurses' Aide	Divorced	5	3,846
35.	--	---	--	---	Foster Parents		----
36.	11	Laborer	12	Stitcher	Together	5	7,680
37.	--	Unemployed	--	----	Together	4	3,000
38.	11	Laborer	7	----	Separated	2	Welfare
39.	--	----	12	----	Separated	3	Welfare
40.	14	Postal Clerk	12	Telephone Operator	Divorced	6	3,300
41.	8	Railroad Attendent	BS	Teacher	Together	2	6,953
42.	6	Cook	12	Housewife	Together	3	3,120
43.	11	Custodian	12	Housewife	Together	3	3,300
44.	3	Unemployed	9	Part-time Maid	Together	6	Welfare
45.	9	Stockman	9	Operator	Together	2	4,347
46.	12	Clerk	10	Housewife	Together	4	3,900
47.	13	Organist	13	Clerk, typist	Divorced	4	8,831
48.	--	Deceased	--	---	Foster Parents	2	----
49.	--	Unemployed	--	----	Separated	-	Welfare

	Father's Education	Father's Occupation	Mother's Education	Mother's Occupation	Marital Status	Dependent Children	Family Income
50.	--	Kitchen man	12	Clerk	Together	3	$3,300
51.	12	Polisher	8	Housewife	Together	1	4,500
52.	--	Waiter	--	Seamstress	Together	3	2,700
53.	--	Clerk (Disabled)	--	Housewife	Together	2	Disability Pensions
54.	7	Laborer	7	Housewife	Separated	7	6,000
55.	8	Laborer	12	Housewife	Together	6	5,221
56.	9	Stationary Engineer	12	----	Together	2	4,293
57.	11	Welder	11	Housewife	Together	4	4,442
58.	5	Railroad Worker	6	----	Together	6	1,578
59.	9	Oiler	11	Housewife	Together	4	5,995
60.	7	Marine Fireman	12	Cafeteria Worker	Together	2	5,240
61.	10	Sanitation man	10	Housewife	Together	3	6,700
62.	--	Deceased	12	Housewife	Widow	1	Welfare
63.	10	Rancher	10	----	Together	3	5,000
64.	AB	Substitute Teacher	AB	Housewife	Together	3	4,416
65.	8	Mechanic	10	Housewife	Together	5	5,500
66.	--	---	10	Housewife	Step-Father	3	3,408
67.	12	Rancher	11	Clerk-Typist	Together	3	4,100
68.	12	Deceased	12	Dress Operator	Widow	3	2,315
69.	12	Auto Mechanic	12	Checker	Together	4	8,558
70.	--	----	11	Housewife	Step-Father	1	4,000
71.	6	Patrolman	9	Housewife	Together	1	5,800

	Father's Education	Father's Occupation	Mother's Education	Mother's Occupation	Marital Status	Dependent Children	Family Income
72.	11	Salesman	11	Housewife	Together	4	$5,460
73.	9	Upholsterer	11	Housewife	Together	5	3,120
74.	--	Truck Driver	--	Housewife	-- WARD OF THE COURT		
75.	--	Postal Worker	15	Nurse	Together	2	4,320
76.	--	---	4	Housewife	Step-Father	8	2,784
77.	5	Deceased	7	Laundress	Widow	3	1,519
78.	14	Accountant	12	Housewife	Together	2	4,632
79.	10	Unknown	14	Clerk	Separated	1	4,697
80.	12	Conductor	12	Housewife	Together	6	6,190
81.	12	Disabled	12	Housewife	Divorced	5	Welfare
82.	--	Carpenter	--	Housewife	Together	3	5,800

Appendix B

Academic Profile

	Age 6/1/65	City and State	Previous School	Grade	Otis Gamma EM June 1965 I.Q.	Preparatory School
1.	13	Bronx, N.Y.	Niles J.H.S.	8	102	Mount Hermon
2.	14	Ozone Park, N.Y.	Wadleigh J.H.S.	9	99	Not Recommended Mount Hermon
3.	13	New York, N.Y.	Wadleigh J.H.S.	8	122	Did Not Enter Mountain School
4.	16	Rosebud, S. D.	Todd County H.S.	9	112	Lenox
5.	15	Bronx, N.Y.	DeWitt Clinton H.S.	10	120	Milton
6.	15	Brockton, Mont.	Brockton H.S.	10	124	Withdrew: 7/1/65
7.	14	Henderson, N.C.	Henderson Inst.	8	139	Governor Dummer
8.	15	Cleveland, O.	Charles Eliot J.H.S.	9	125	Deerfield
9.	14	Brooklyn, N.Y.	Midwood H.S.	9	142	Hotchkiss
10.	14	Brooklyn, N.Y.	John Coleman J.H.S.	9	128	Wilbraham
11.	15	Steubenville, O.	Catholic Central H.S.	10	114	Kimball Union Academy
12.	14	Richmond, Va.	Mosby J.H.S.	9	128	Governor Dummer
13.	14	Dorchester, Mass.	P.T.Campbell J.H.S.	9	99	Cushing
14.	13	Henderson, N.C.	Henderson Inst.	8	121	Mercersburg
15.	16	Mission, S.D.	Todd County H.S.	10	103	Lawrenceville
16.	14	New York, N.Y.	J.H.S. 43	9	123	Groton
17.	13	Mansfield, O.	John Simpson J.H.S.	8	114	Western Reserve
18.	14	New York, N.Y.	J.H.S. 164	8	120	Pomfret
19.	13	New York, N.Y.	J.F. Cooper J.H.S.	9	117	Gunnery
20.	14	New Haven, Conn.	Ivy Street School	8	115	Pomfret
21.	13	St. Louis, Mo.	Washington H.S.	8	107	Not Recommended Hill
22.	14	New York, N.Y.	J.F. Cooper J.H.S.	9	106	Not Recommended Wooster
23.	14	Savannah, Ga.	St. Benedict	8	114	Darrow
24.	13	Brooklyn, N.Y.	Walt Whitman J.H.S.	8	118	Pomfret

Appendix B

	Age 6/1/65	City and State	Previous School	Grade	Otis Gamma EM June 1965 I.Q.	Preparatory School
25.	14	Brooklyn, N.Y.	Holy Rosary	8	127	St. Mark's
26.	14	Roxbury, Mass.	P.T. Campbell J.H.S.	9	118	Mount Hermon
27.	15	New York, N.Y.	Wadleigh J.H.S.	9	123	Darrow
28.	14	Providence, R.I.	---------------	8	112	Andover
29.	14	New York, N.Y.	Wadleigh J.H.S.	9	114	Verde Valley
30.	16	South Hill, Va.	East End H.S.	10	108	Mercersburg
31.	14	New York, N.Y.	Wadleigh J.H.S.	9	120	Hackley
32.	12	St. Louis, Mo.	Washington H.S.	8	129	Choate
33.	14	New York, N.Y.	J.H.S. 139	9	113	Noble & Greenough
34.	14	Brooklyn, N.Y.	Macon J.H.S.	8	118	Birch Wathen
35.	14	Arvada, Colo.	Drake J.H.S.	8	135	Andover
36.	14	Darien, Ga.	Todd-Grant H.S.	9	108	George
37.	16	Richmond, Va.	Randolph H.S.	10	132	Suffield
38.	14	Brooklyn, N.Y.	Whitelaw Reid J.H.S.	9	122	Kent
39.	13	Springfield, Mass.	Buckingham J.H.S.	8	116	Mount Hermon
40.	14	Roxbury, Mass.	English H.S.	9	105	DeVeaux
41.	13	Bronx, N.Y.	Herman Ridder H.S.	8	126	Exeter
42.	14	Richmond, Va.	Mosby J.H.S.	9	118	Mount Hermon
43.	13	Pittsburgh, Pa.	Hillsdale Elementary	8	122	Wilbraham
44.	14	Savannah, Ga.	J.W. Hubert J.H.S.	9	110	Cheshire
45.	13	Brooklyn, N.Y.	John M. Coleman J.H.S.	8	116	St. Mark's
46.	12	Philadelphia, Pa.	Tilden J.H.S.	8	106	The Gunnery
47.	14	Brooklyn, N.Y.	Macon J.H.S.	8	119	St. Paul's
48.	16	Jackson, Ga.	M.M. Bryan J.H.S.	11	123	New Hampton
49.	14	Rapid City, S.D.	Custer J.H.S.	7	118	St. Paul's
50.	13	Bronx, N.Y.	Elijah Clark H.S.	8	133	St. George's

Appendix B

	Age 6/1/65	City and State	Previous School	Grade	Otis Gamma EM June 1965 I.Q.	Preparatory School
51.	13	New York, N.Y.	Wadleigh J.H.S.	8	102	Darrow
52.	14	Boston, Mass.	P.T. Campbell H.S.	9	111	Solebury
53.	14	East Orange, N.J.	V. L. Davey J.H.S.	8	133	Tilton
54.	13	Rooseveltown, N.Y.	Salmon River Central H.S.	8	108	Pomfret
55.	14	Stamford, Conn.	Cloonan J.H.S.	8	109	New Hampton
56.	15	Pittsburgh, Pa.	Westinghouse H.S.	10	118	Andover
57.	14	New Haven, Conn.	Bassett J.H.S.	9	125	Mount Hermon
58.	14	Memphis, Tenn.	Porter J.H.S.	9	119	Woodstock
59.	12	Bronx, N.Y.	Niles J.H.S.	8	113	Andover
60.	15	Norfolk, Va.	B.T. Washington H.S.	10	126	Andover
61.	13	Brooklyn, N.Y.	Halsey J.H.S.	8	113	Hotchkiss
62.	14	Trenton, N.J.	J.H.S. 4	9	125	Andover
63.	15	Wyola, Mont.	Lodge Grass H.S.	10	97	Western Reserve
64.	13	Patterson, N.J.	H.S. 13	8	112	Not Recommended Peddie
65.	15	Bronx, N.Y.	J.H.S. 149	9	108	Darrow
66.	14	New York, N.Y.	John Roberts J.H.S.	8	118	Peddie
67.	13	Busby, Mont.	Busby H.S.	8	111	Not Recommended Tilton
68.	14	New York, N.Y.	Manhattanville J.H.S.	8	113	Taft
69.	14	New Haven, Conn.	Bassett J.H.S.	8	125	Taft
70.	15	New York, N.Y.	Wadleigh J.H.S.	9	113	Lawrenceville
71.	14	Pittsburgh, Pa.	David Oliver J.H.S.	9	122	Deerfield
72.	14	New York, N.Y.	Wadleigh J.H.S.	9	124	Peddie

Appendix B

	Age 6/1/65	City and State	Previous School	Grade	Otis Gamma EM June 1965 I.Q.	Preparatory School
73.	16	Farmville, Va.	Moton H.S.	10	110	New Hampton
74.	16	Arlington, Va.	Swanson J.H.S.	9	89	Wilbraham
75.	14	Roxbury, Mass.	Holy Trinity	8	107	Commonwealth
76.	14	Shelby, Tenn.	Porter J.H.S.	9	122	Western Reserve
77.	14	Farmville, Va.	Moton H.S.	9	109	Wilbraham
78.	13	New York, N.Y.	Ascencion	8	110	Collegiate
79.	14	Bronx, N.Y.	J.H.S. 123	8	109	Withdrew: 7/6/65
80.	15	New York, N.Y.	J.F. Cooper J.H.S.	9	120	Verde Valley
81.	15	New York, N.Y.	J.F. Cooper J.H.S.	9	123	Mercersburg
82.	15	Clairton, Pa.	Thomas Jefferson H.S.	10	126	Hotchkiss

Appendix C

Resource Persons

Nancy Adams
Ardell Anderson
Rev. William Anthony
Madge Avent
James Bottero
Lionel Bourne
George Boyd
Jeannetta Branche
Paul Brown
Wilbert Burgie
Val Caputo
John Carter
Garvey Clarke
Benjamin Collier
Catherine Cooper
Allan Crane
Francis Dahl
Noel Day
Hazel Duncan
Rev. Edwin Edmonds
Charles Egan
Bernard Fielding
Rev. Richard Gary
Alfred Greenberg
Roscoe James
Gladys Guson
Rev. James Gusweller
Helen Heath
Robert Hughes
Livingstone Johnson
Arthur Kobacker
The Hon. Berton Kramer
Ruth Land
Roger Malkin
Enrique Mulero
James Overfield
Irene Pierce
Grace Pleasants
Edouard Plummer
Edward Ranaghan
Howard Robinson
Julian Robinson
Victoria Ruiz
William Shane
Bernard Shapiro
Charles Sikoryak
Parris Sterrett
Rev. James Stewart
Andrew Thomas
Herbert Tibbs
Jerry Walker
Tillie Walker
Rev. John Wells
John Williams
Webster Williamson
Rev. Virgil Wood
Amy Young

Appendix D

English Supplement

Richard Brown

READING:

I observed that my classes greatly enjoyed the Steinbeck and Hemingway works. Consequently, the teaching of plot, setting, character analysis and other literary devices was greatly enhanced. The complexity of The Red Badge of Courage and The Odyssey was a healthy challenge for most of the boys, while a few experienced frustrations because of reading deficiencies or a lack of desire to extend themselves. The calibre of these two works provided an introduction to the type of material they will encounter in the preparatory schools, and added splendidly to the motif of courage.

My Name is Aram: The boys completed the volume and enjoyed it. However, they failed to grasp much of the satire and implicit material. Once they came to realize the difference between implicit and explicit, most of them found a greater pleasure in the remaining selections.

DETAILED SUMMARY:

This technique did serve rather well the intended purpose. Most of the boys benefited greatly from this exercise. Improved note-taking and better writing of the summary increased as time progressed, and many of the boys, by the fifth week, were using their own words to express that which they heard.

WRITING: Unit Lessons in Composition - Book II

Not only did time make prohibitive the use of the books, but I also felt that the boys had greater needs in the more fundamental aspect of composition. The stylistic techniques presented in this book were too advanced for the youngsters. I did use four units (1, 2,5,6) with one of the more capable students.

A PROGRAMED APPROACH TO WRITING:

I introduced this material in the first conference session, utilizing the first twenty minutes for working in it. I continued in this manner for the first three weeks of the term, and the results were very good for two-thirds of the boys. There was definite evidence of progress with the topic sentence and the development of details. Taking note of this, and desiring faster progress without allotting more conference time, I permitted the books to be taken out of the classroom.

In checking the books and questioning the students on the material a week later, I found them unable to employ the skills taught in the assigned frames. I attribute their lack of learning to the simple matter of my not using the text as the authors had intended. Their suggestion had been that the teacher be present when the student is working in the text, to give help and encouragement and to be certain that the student was learning.

A Programed Approach To Writing is a good text if used correctly. I strongly recommend that it be used next year.

RECOMMENDATIONS:

1. Writing: Unit Lessons in Composition - books I and II
   This book should be available in limited quantity for supplementary use.

2. A Programed Approach to Writing
   This is a good text. It should be used next year, with emphasis on its being a classroom text only.

3. The Harbrace College Handbook
   I would like to see this volume used again next year.

4. I feel it is advisable that the maximum student load per teacher be fifteen students.

The idea of following a literary theme, in this case courage, was a sound one. Certainly it gave a sense of unity to the literature phase of the course, and it also provided ideas for work in writing. Such was also true of several of the films shown. The plan to progress from easy to difficult reading also had great merit.

EVALUATION OF TEXTS:

In retrospect, Steinbeck's The Red Pony seems to have been too easy, and certainly it did not prepare the boys for Crane's difficult style. The Pearl seemed to have more to offer. I daresay it is always the approach of the teacher which spells the degree of success in such matters, but the boys appeared to find more of value in The Pearl than in The Red Pony. In the former I spent some time in going through especially significant passages. The beauty of Steinbeck's language was not lost on the students. At another time I would stress style even more.

Several boys said that they had read Hemingway's The Old Man and the Sea. One of the boys who objected most violently to the rereading of the novel repeatedly referred to it as The Old Man IN the Sea. I thus concluded that nothing could be lost by rereading the book. The study of this novel proved most rewarding. I believe that most of the boys felt Santiago's greatness and his suffering. The novel also gave me an opportunity to approach the world of symbolism. We did but skate gently on the ice of symbolism, but I did feel that it was a pleasant exercise. Most certainly I should want to include Old Man again. It is interesting to recall that when the film was shown, several of the boys were of the opinion that the book was better than the movie.

Saroyan's My Name is Aram was used as an occasional text. I am not of the opinion that the majority of the boys enjoyed Saroyan to any degree. Perhaps that which they considered extremely childish in approach was indeed too sophisticated for them. In short, they were indifferent to the book, and I found it somewhat difficult to whip up any particular interest in it. Perhaps we might have used two or three of the short stories included in the Crane text.

The Red Badge of Courage set the boys back on their heels. Here was something quite different from the style of Steinbeck and Hemingway, and the boys were not prepared for such a drastic change. On the other hand, once the students accepted the fact that Crane was not easy to read, I believe that they enjoyed the novel. Because it fitted in with the general theme of courage and because it proved to the boys that simplicity of style is not everything, I found the reading of The Red Badge very rewarding.

The Odyssey was in every respect a great success. It was a pleasure to teach the epic, and the boys found great pleasure in reading it. What more can one ask? I do wish that we had used Edith Hamilton's Greek Myths as a companion piece. I should strongly recommend the addition of this valuable book if Homer is to be studied. The Smaller Classical Dictionary was also a helpful text.

Martin Luther King's "Letter from the Birmingham Jail" and the Nobel Prize Acceptance Speech were extremely difficult for the students. They gained little or nothing from either document until I made them underscore topic sentences in each paragraph and instructed them in how to write marginal notes in the text. I fear that this approach to King's writing took away much of the beauty of the language, but there seemed to be no other recourse. When we had done this work and when the boys understood what they were reading, the discussions were exciting and rewarding. Perhaps the King ought to have come earlier in the summer when time pressure was not so great. King was rough going, but very, very rewarding.

Unit Lessons in Composition, Book II, was satisfactory enough, but it does seem to be very verbose. I can see the need for a text of this kind, but perhaps Book I might have been better. I began by having the boys study the chapters out of class. The 200-250 work paragraphs which were written after studying the assignment were frightful. In general, the writing bore little or no relation to the assigned reading. While I was somewhat hesitant to do so, I found that it was infinitely better to read the text during the class period and to discuss at some length precisely what the written assignment was meant to illustrate. This method produced better writing. I am rather lukewarm about Writing II.

Harbrace College Handbook served a certain purpose, and I have no great quarrel with it. At times the book seemed too sophisticated for boys who had had little or no training in grammar and allied subjects. It was frequently necessary to bring the Handbook down to the level of the students.

TECHNIQUES:

The Detailed Summary proved to be an invaluable aid. These exercises enable one to talk intelligently about many things: sentence structure, organization, punctuation, spelling, and a host of other things. The logic in punctuation, for example, or dangling modifiers for another, could be made clear through the exercises. The Detailed Summary also forced the students to listen carefully. A solid round of applause to John Lincoln for this brilliant innovation.

Short answer questions (always in complete sentences) were given very frequently. These forced the boys to do their reading of the assigned literature carefully. I also used the responses to teach clear, concise writing. As time went on, I introduced the students to the longer, more involved essay question. This exercise was new to all of the boys, and for a time it proved to be very difficult for them.

In time, however, the students gained reasonable skill in handling the essay question which contained within it several points to be discussed. Here it was that I stressed not only the correct answer, but also organization, transition between ideas, proof of statement, etc.

Compositions were kept relatively short (about 400 words) and were usually of a simple nature. It was obvious that the boys wrote best on things which they had experienced or about which they had read. In short, when the students could become truly involved in the writing, the papers were satisfactory. The broad (Writing Sample) idea of writing for one hour on God, Time and Space will not (and should not) work with these boys.

Faculty Appointments after lunch worked out well until Miss Robinson was forced to leave us. The addition of several students destroyed the schedule that I had worked out, and it was difficult to get things back on an even keel. Before this unfortunate loss, I scheduled students in my two classes to come on different days. I reserved Wednesday for special appointments. In one way or another I was able to see each boy at least once each week and the very weak students twice a week. Although I was somewhat hesitant to do so, I sometimes found it necessary to make dormitory "house calls" in the evening so that I could give additional help to a weak boy.

The summer was a most rewarding one. Certainly one could not have found two more dedicated colleagues than John Lincoln and Richard Brown.

EXCERPTS FROM THE TWO WEEK REPORTS

Miss Carrie Robinson

June 28 - July 10

LISTENING:

PROCEDURE: I talked informally with the boys about the recognition, first, that listening is an art just as reading, writing, and speaking are arts, and that one must cultivate the habit of good listening. I emphasized that good listening is essential to their success in the ABC Program and to later success. I continue to urge them to listen for ideas and facts and in note-taking to leave ample space around these ideas to fill in the details as soon after the lecture as possible. (This method has already proved effective for them in taking notes on the lecture that I give in the English Conference period. From these notes they write a Detailed Summary.) Additionally, I give the boys frequent opportunities to take down assignments that are made verbally; then I call upon one of them to repeat the assignment to determine how well he has listened. Also, frequent announcements are made relative to their work. In the speaking assignments, the boys are encouraged to listen attentively, to make jottings of those things that they may wish to comment upon or about which they may wish to ask questions. (This is also helping to develop in them a critical appraisal.)

SPEAKING:

PROCEDURE: I discussed with the boys the importance of clearness and distinctness in all activities relating to oral communication. I tried to make them aware of such attributes as stance, poise, movement, visual contact, and pause, this last being the best weapon against being ill at ease. Further, I tried to encourage them to articulate and pronounce words distinctly, and, above all, to recite loudly enough for every boy in the classroom to benefit from their recitation. I urged each boy who had difficulty hearing another's recitation to ask the classmate reciting to speak louder.

I provided a special opportunity for each boy to speak before the class by assigning a three-minute (maximum time limit) speech based on the following assignment:

> Did reading "The Journey to Hanford" remind you in any way of any particular experience you had in journeying to Hanover for the ABC Project? If so, describe the experience and make the proper association from your reading.

The boys were given several days to prepare for the assignment, and each boy had prepared what he was going to say before he took the floor. I was pleased with the analogy made by most of the boys. (Any boy who could not make the proper association here was given the freedom to talk about some other journey he had made that proved profitable for him.) Before I listened to the first speech, I asked the boys to make brief notes reflecting their observations, comments, and/or criticisms that would help each boy improve his oral performance. I saved my own comments until the end of the boys' comments.

THE ENGLISH CONFERENCES:

PROCEDURE: I used the first conference the first week to get the boys started in A Programed Approach to Writing, a workbook which teaches how to write a paragraph. One of the advantages of the book is that each boy is able to work at his own speed. Because of the value of working in these books under supervision, the boys are not as yet being permitted to take the books out of the classroom. In the first working effort, the average number of frames completed was between 26 and 28. (There are 376 frames in the book.) One of the frames called for the writing of a 150 word paragraph. Some of the boys were able to begin and complete the paragraph; some were able to begin it, although they did not complete it; and some were not able to begin it at all because of lack of time. A few of the boys went beyond the 26 or 28 frames the first day.

I used the second conference period this week to allow an opportunity for the boys to work in their workbooks, A Programed Approach to Writing. I was pleased with the progress that the boys made. I check each boy's book every time he works in it, mainly to determine his progress and make note of any additional help he needs. Also, I correct all of the paragraphs that he has constructed in the book. If he has too many mistakes, I require him to revise the paragraph and attach the sheet to the original draft in the book. Several boys completed not only the 38 frames that advanced them to the end of the frames on the topic sentence across the top of the pages of the book, but also returned to the front of the book to continue with frame 65. They also write all of the paragraphs that were required along the way to demonstrate knowledge about the topic sentence and its supporting specific details.

July 12 - July 17

DISCUSSION:

PROCEDURE: I continued the discussion of The Pearl and The Old Man and the Sea with emphasis on the plot, crisis, climax, and irony in the novels. I took the opportunity, also, to speak of these in the play, Richard II, since the boys had seen it on Friday, July 9. (I neglected to mention in the report of the first two weeks that for the sake of the boys who had not been able to get copies of Richard II, I used my English class periods reviewing the play. I was gratified that the boys followed the performance rather well.)

Aside from this discussion of their reading, I found it necessary to use some class time to talk about the comma splice and the fused sentence. Quite a few of the boys were having difficulty with these in their writing. I assigned them Section 3 in the Harbrace College Handbook for study. I took from their combined efforts in three writing assignments a total of forty examples of comma splices and fused sentences and placed some of these on the blackboard for discussion. I told the boys, first, how to avoid these errors; then, I encouraged them to point out the errors in the sentences and tell me how they could be corrected.

THE ENGLISH CONFERENCES:

PROCEDURE: Again, I found it necessary in one of the conferences to admonish the boys regarding what is required in the Detailed Summary. Some of the boys are having difficulty with this exercise; others are doing well with it. I attempted to make some suggestions to boys who work more slowly than others, hoping to speed up their process of note-taking. To this end, I dictated a series of short sentences and timed them in their writing of the sentences. My purpose was to give them the "feel" of what is required in writing the Detailed Summary. I believe this helped, for there was some improvement in the boys who work slowly. This was reflected, too, in the two Summaries required later in the week. (I have found that a fourth reading is required for the boys who have not yet disciplined themselves to work within the fifteen-minute limit for writing the Summary. This often means that these boys do not complete the writing of the Summary within the class hour.) I used the last two English Conference periods for the lecture plus the Detailed Summary. One of the Summaries was based on a characterization of Richard II to further stimulate interest in the play.

Appendix E

Mathematics Testing

The arithmetic test was given to 81 boys on June 25. A perfect score would have been 116. The highest score was 99 and the lowest was 20. The median was 52 while the mean was 59.

The algebra test was given to 42 boys on the basis of the arithmetic score and the previous training. At times we took the boy's word for the fact that he had been in an algebra course. A perfect paper on this test would have been 104. The highest score was 94 and the lowest was 08. The median score was 34 while the mean score was 39.

Another test was given to those not taking the algebra test. Both were given on June 26. We did not correct this test, however, since we could not learn anything from it but we thought the experience would lead into work which these boys would do within a few weeks.

The final examination in pre-algebra was a ninety-minute test given on August 19 to 56 students. A perfect score would have been 100, the highest score was 91, the lowest was 17, the median was 55 and the mean of all the scores was 53.

The final examination in algebra was a ninety-minute test given on August 19 to 23 students. A perfect score would have been 100, the highest score was 88, the lowest was 41, the median score was 66 and the mean of the scores was 64.

MATHEMATICS TEST - DIAGNOSTIC
(Arithmetic)

June 25, 1965

Do as much as you can of the test. There will be some problems in the test which cover material you have not seen before. If you think about the problem however, you may be able to get it.

ANSWERS

1. In the numeral 7423.56, which is the hundreds digit? b) which is the units digit? c) which is the thousands digit?
1.a)______
b)______
c)______

2. Perform the indicated operations:
a) 4 1/5 - 2 3/8 = 2.a)______
b) 2 2/5 + 3 3/8 - 4 ¼ = b)______
c) 3 1/3 + 4 2/5 = c)______
d) 6 2/3 x 3 3/8 = d)______

3. Evaluate 4 + 6 x 3 - 4 + 2 + 5 3.)______

4. Express 3 3/4% as a)a common fraction reduced to lowest terms; b) a decimal
4.a)______
b)______

5. Complete:
a) Consecutive even numbers differ by 5.a)______
b) Consecutive numbers differ by b)______
c) Consecutive odd numbers differ by c)______
d) If a number has only itself and one as factors it is a ______ number d)______

6. Simplify the following: $\frac{3 - 7/8}{3/4+7/2}$ 6.)______

7. Find the average of 26, 48 and 16. 7.)______

8. If you went to bed at 8:00 at night and set the alarm for 9:00 in the morning, how many hours sleep would you get?
8.)______

9. Of the two numbers 19/50 and 3/8, a) determine which number is the larger, and b) by how much
9.a)______
b)______

10. Which of the following are true?
a) $6 < 9$ 10 a)______
b) $7 \leqq 7$ b)______
c) $4 \nless 8$ c)______
d) $4 + 1 \neq 5$ d)______

11. Find $\sqrt{529}$ 11.)______

12. A farmer had 17 sheep, all but 9 died, how many did he have left? 12.)______

13. Find the least common multiple of 98, 21 and 81 13.)_______

14. a) What is the number that is 15% of 142? 14.a)_______

b) What is the number that is 3.4% of 12? b)_______

15. a) 6 is what percent of 25? 15.a)_______

b) What percent of 4 is 6? b)_______

16. a) Name a number which will make the following a true statement:
$12 + 7 < ? + 8 < 8 + 13$ 16.a)_______

b) Can you find another rational number which will make the expression in part a true? b)_______

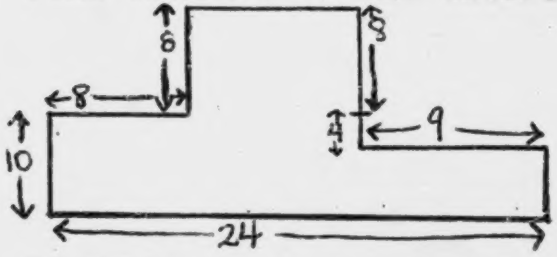
17. Divide 30 by one-half and add 10. 17.)_______

18. If m marbles cost 28 cents, what is the cost of:
a) one marble 18.a)_______
b) one dozen marbles? b)_______
c) d marbles? c)_______

19. Draw a rough sketch of a number line and graph approximately the following numbers on it: a) ½ b) 2 1/4 c) 13/5 d) -2
Graph:

20. Two men play checkers and play five games. Is it possible for each man to win the same number of games if there are no ties?
20.)_______

21. Find the area of the entire figure below 21.)_______



22. If the area of a rectangle is 48 square inches and the width is 6 inches, what is the perimeter of the rectangle? 22.)_______

23. A ladder 25 feet long was set against the side of a building. If the base of the ladder was 7 feet from the building, how far up the building did the ladder reach? 23.)_______

24. The population of a town increased from 3600 to 4500. What was the percent of increase? 24.)_______

25. What is the simple interest earned on $1250 invested at 4½% for two years?
25.)_______

26. Answer true or false: a) 0/4 = 1 26.a)_______

b) $\sqrt{2} = 1.414$ b)_______

26. c) 4/0 = 0 c)________

d) π = 22/7 d)________

e) 15 + 0 = 15 e)________

27. The numeral 24 in the base five is equivalent to what numeral in the bast ten? 27.)________

28. Use any three different single digit numerals to illustrate the associative law for addition. 28.)________

29. If A - $\{3,4,8\}$ and B - $\{2,4,7,8\}$ write the set $A \cap B$. 29.)________

30. A number, three-fourths of which is 18, is increased by 33 1/3%. What is the result? 30.)________

31. Find the volume in cubic feet of a rectangular box if its base is a square of side 3.5 feet and its height is 9". 31) ________

32. If a wheel of radius one foot travels 220 feet, how many revolutions will it have made? (Use π = 22/7). 32.)________

Appendix E.

ALGEBRA TEST

1. If P designates the principal, express algebraically:
   - a) Twice the principal ________
   - b) ten dollars less than the principal ________
   - c) the principal increased by 50 dollars ________
   - d) two thirds of the principal ________

2. if a = 2, b = -1, and c = 3, evaluate: $\frac{2a = b^2}{2a - 3c}$ ________

3. What number increased by two-thirds of itself is 25? ________

4. Solve for x: $4 (2 + 3x) = 1 - 3 (x - 2)$ ________

5. Pencils sell at the rate of 3 for p cents. Express in dollars the cost of s pencils. ________

6. Simplify the following expression: $\frac{6a}{a - 2} + \frac{6}{2 - a}$ ________

7. If $f(x) = x^2 - 2x + 3$, what is $f(-2)$? ________

8. Which of the following are numerals for rational numbers?

   a) 4/3; b) $\sqrt{18/2}$; c) 3.247; d) $3\sqrt{3}$; e) 0.454545... ________

9. Simplify: $\frac{x^2}{x^2 - 1} \cdot \frac{x^2 + 3x + 2}{x^2 - x} \div \frac{x}{x^2 - 2x + 1}$ ________

10. I have in my hand two coins which are worth 55 cents. One is not a nickel. What are they? ________

11. Is there any number x for which a) $3^{2x} = 3/3$

    b) $3^{2x} = x/x$? ________

12. Subtract the sum of $w - 4t$ and $4t + 3w - 3$ from the sum of $7 - 2t - 7w$ and $3w - 7$. ________

13. Divide $p^4 - p^2 + 12$ by $p^2 + 3p + 4$. ________

14. Simplify: a) $x^3 \cdot x^4$; b) $(x^2)^5$; c) $\sqrt[3]{x^{27}}$
    - a) ________
    - b) ________
    - c) ________

15. Simplify: $-\left[- 4x^2 + 3x - (7x + 2x^2 - 6)\right]$. ________

16. Express the perimeter of a rectangle having width p inches and length f feet. ________

17. Solve for x: $\frac{x + 7}{2} - \frac{7x + 5}{6} = \frac{5(1 - x)}{4} - 1/3$ ________

18. Simplify: $\frac{2x - 1}{x^2 - 7x + 12} - \frac{3x + 2}{2x + x^2 - 15} + \frac{x + 1}{x^2 + x - 20}$ __________

19. Determine the greatest common factor and lowest common multiple of:

$x^2 - 4,\ x^2 + 2x - 8,\ x^2 + 6x + 8$ __________

20. Solve for x and y: $3x - 2y = 13$
$2x + 3y = 0$ __________

21. If one number is 4 greater than three times another and the sum of the two numbers is 64, what are the numbers? __________

22. Solve for y: $(3y + 1)^2 - (3y - 5)(3y + 7) = -(8 + 4y)$. __________

23. Simplify and combine: $\sqrt{12} + \sqrt{27} = \sqrt{75}$ __________

24. Two cars start in opposite directions from a crossroad. One car travels at 25 miles per hour and the other at 30 miles per hour. How long will it take for the two cars to be 176 miles apart? __________

25. A 24-quart solution is one-fourth alcohol. How much water must be added to make a 20% solution? __________

26. For each of the following, write the formula which relates y to z. (Part a is done for you.) a) y = 3x + 1

a)

x	0	1	2	3
y	-1	2	5	8

b)

x	4	6	7	10
y	3	5	6	9

b)__________

c)__________

c)

x	2	3	5	6
y	7	9	13	17

d)

x	1	3	4	6
y	1	9	16	36

d)__________

Appendix E.

MATHEMATICS TEST - III

It is anticipated that you will not have seen problems like these before. However, if you read them carefully and think about what you are doing, you should be able to do most of them.

1. The factors of any given number are those numbers which divide into the given number so that the quotient is a whole number. For example, the factors of 12 are 12, 6, 4, 3, 2, 1.

   a) What are the factors of 6?
   b) What are the factors of 20?
   c) What are the factors of 17?
   d) What are the factors of 36?
   e) What are the factors of 23?

2. The factors of 6 which are smaller than 6 are 1,2 and 3. The sum of these factors, 1 + 2 + 3, is 6, the number with which we started. An integer, such as 6, having the property that the sum of its factors less than itself is again the given integer, is called a "perfect number". An example of an integer that is not perfect is 12. The factors of 12 smaller than 12 are 1,2,3,4 and 6. The sum of these factors, 1 + 2 + 3 + 4 + 6, is 16. Since the sum is not 12, the integer 12 is not perfect.

   a) Are there any perfect numbers smaller than 6?
   b) What is the next perfect number larger than 6?

3. A prime number is one that has only itself and 1 as factors. List the ten smallest prime numbers. (Note: the number one is not considered a prime number).

4. Two different numbers often have one or more factors which are factors of both. These factors are called "common factors". For example: 6 is a factor common to 12 and 24. What are the common factors greater than 1 of the following:

   a) 14, 21
   b) 20, 30
   c) 33, 66
   d) 9, 27

5. The prime factors of a given number are those factors which are prime numbers. Example: The numbers 2 and 3 are the prime factors of 12. List the prime factors of the following:

   a) 24
   b) 20
   c) 13
   d) 27
   e) 112

6. A composite number is a whole number which is greater than one and is not prime. List the first five composite numbers which are not even numbers.

7. Assume the symbol $\$$ to mean multiply the two numbers together and divide by 2. Example: $6 \$ 7 = \frac{6 \times 7}{2} = 21$. Do the following problems:

a) $4 \$ 3$ ____________
b) $5 \$ 8$ ____________
c) $8 \$ 5$ ____________
d) $7 \$ 9$ ____________
e) $1 \$ 11$ ____________
f) $0 \$ 12$ ____________

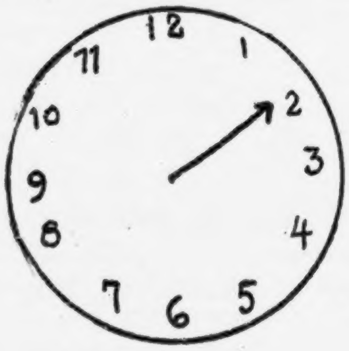
8. Assume the symbol * to mean subtract the second number from the first and multiply the result by 2. Example: $6 * 3 = (6 - 3) \times 2 = 6$. Do the following problems:

a) $4 * 1$ ____________
b) $5 * 2$ ____________
c) $2 * 5$ ____________
d) $8 * 8$ ____________

9. The symbols $\$$ and * can be used together. Example: $(6 \$ 2) * 5 = \frac{6 \times 2}{2} * 5 = 6 * 5 = (6 - 5) \times 2 = 2$. Do the following problems:

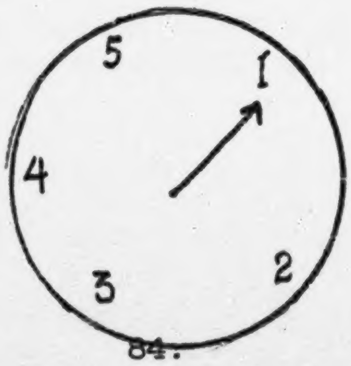
a) $(5 \$ 4) * 2$ ____________
b) $(8 \$ 3) * 2$ ____________
c) $8 \$ (3 * 2)$ ____________
d) $(8 \$ 3) * (8 \$ 2)$ ____________

10. In clock arithmetic the answers to addition and multiplication problems can be found by thinking about the hour hand of a clock. For example if you left New York at 9 a.m. and it took 7 hours to drive to Hanover, you would arrive at 4 p.m., so, in clock arithmetic, 9 + 7 = 4. Similarly, 5 x 4 = 8. Do the following problems:



a) 4 + 7 ____________
b) 5 + 9 ____________
c) 6 + 10 ____________
d) 7 + 12 ____________
e) 3 x 2 ____________
f) 4 x 4 ____________
g) 5 x 3 ____________
h) 5 x 5 ____________
i) 3 x 9 ____________

11. Now, consider a clock with only the numbers 1, 2, 3, 4, 5 and the clock arithmetic using these numbers. Example: 3 + 5 = 3, 2 x 4 = 3. Do the following problems:



a) 4 + 3 ____________
b) 3 + 4 ____________
c) 2 + 5 ____________
d) 5 + 5 ____________
e) 3 x 4 ____________
f) 3 x 5 ____________
g) 2 x 5 ____________
h) 5 x 5 ____________

11. (cont'd).
Can you subtract in this arithmetic?

i) 4 - 2
j) 5 - 3
k) 4 - 5
l) 1 - 4

12. You have been trained to use addition and multiplication tables. We have written the start of a new table below and given the operation the name "hatch", which has # as its symbol, instead of add or multiply.

		2nd number				
	#	1	2	3	4	5
1st number	1	22	23	24	25	
	2	32	33	34	35	
	3	42	43	44	45	
	4	52	53	54	55	
	5					

Examples:
2 # 3 = 34
3 # 4 = 45
1 # 2 = 23

Do the following problems:

a) 1 # 4
b) 2 # 2
c) 3 # 2
d) 4 # 3
e) Complete the # tables for 5 (across & down)
across
down
f) Do you get the same result if the order of the numbers to be "hatched" is reversed?
g) What numbers can be hatched to get the number 78? Is there more than one way to get the number 78?
h) List all the ways you can see that this operation called "hatch" is different from the one you know as addition.

Appendix E.

PRE-ALGEBRA FINAL EXAMINATION

August 19, 1965

1. Perform the indicated operations:

a) $4 + (-13) = \underline{\hspace{2cm}}$ b) $7/6 - 5/8 = \underline{\hspace{1.5cm}}$ c) $(-6) - (-10) = \underline{\hspace{2cm}}$

d) $(-4) \times (-6) = \underline{\hspace{2cm}}$ e) $4\frac{1}{2} \div 3/4 = \underline{\hspace{1.5cm}}$

2. a) $142_{\text{six}} = \underline{\hspace{3cm}}_{\text{ten}}$. b) $84_{\text{ten}} = \underline{\hspace{3cm}}_{\text{six}}$

c) 235_{six} multiplied by $24_{\text{six}} = \underline{\hspace{2.5cm}}_{\text{six}}$.

3. Write the solution set of each of the following open sentences if the set of integers is the reference set.

a) $3x + 4 = 19$ b) $x^2 = 14$ c) $x^2 - 3x = 0$ d) $2x + 7 = 9 + 2x - 2$

4. a) Find the Greatest Common Divider of 56 and 42 $\underline{\hspace{4cm}}$
b) Find the Least Common Multiple of 56 and 42 $\underline{\hspace{4cm}}$

5. Express each of the following products as the products of two numbers one of which is a number between 1 and ten and the other is 10 raised to some power.

a) $(4{,}000{,}000) \times (500{,}000)$ b) $(0.00045) \times (0.000005)$

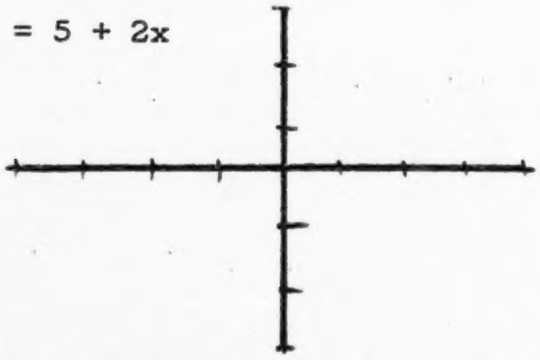
6. Perform the following operations:

a) $5/12\ (5/6 + 1/6) = \underline{\hspace{2cm}}$ b) $2/7\ (12/21 - 4/7) = \underline{\hspace{2cm}}$

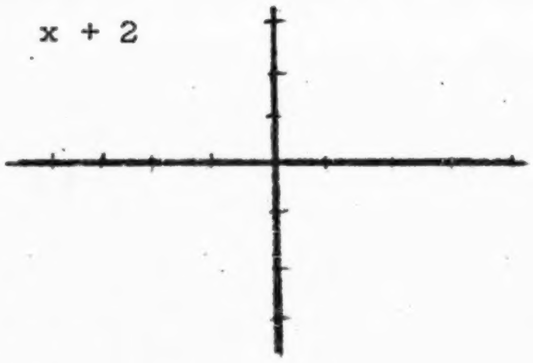
c) $(9/13 \times 5/7 \times 4/3) \times (13/9 \times 7/10 \times 3/4) = \underline{\hspace{3cm}}$

7. Graph the solution set for each of the following if the reference set is constructed from the set of all real numbers.

a) $y = 5 + 2x$



b) $y \quad x + 2$



8. a) Write a two decimal approximation of $\sqrt{43}$. $\underline{\hspace{4cm}}$
b) Find a rational number which appears on the number line one third of the distance from 4/5 to 7/8. $\underline{\hspace{4cm}}$

9.a) If A is the set of all integers less than 9 and greater than -4 and B is the set of all integers less than 12 and greater than 5, write the set which is equal to $A \cap B$.

$A \cap B =$ ______

b) Write the smallest set T for which the following is true: The number 9 is in T, $x > 2$ and if x is in T then $x - 3$ is in T.

T = ______

10. Three eighths of a group of people riding on a train are women. If the number of women is 72, how many people are on the train?

______

11. Write the solution set for each of the following if the reference set is the set of all real numbers.

a) $(x - 4)(x + 2) = 0$ b) $(x)(\sqrt{2}) = 4$ c) $x^2 < 0$

d) $\frac{4}{x - 3} = 0$ e) $\frac{0}{x} = 0$

12. In a wild animal survey that examined 38 lions, six of the lions had perfect teeth and perfect claws. Twenty-eight lions had broken teeth and 18 lions had broken claws.

a) How many lions had broken teeth and broken claws? ______

b) How many lions had broken teeth but perfect claws? ______

13. Consider an arithmetic modulo 7 to answer the following:

a) Define $\overline{3}$

b) Find $\overline{2} \times \overline{5}$ ______

c) Write the solution set for $x + \overline{4} = \overline{2}$ ______

d) What number is the sixty-ninth element in $\overline{5}$? ______

14. Write the following as the quotient of two integers. If this is not possible, write "impossible" in the space provided.

a) $0.767676\ldots =$ ______ b) $\sqrt{8} =$ ______ c) $0.134 =$ ______

d) $1/10 + 1/100 + 1/1000 + \ldots =$ ______ e) $2.3454545\ldots =$ ______

15. State the name of the property which justifies each step in the following simplification:

$$\begin{aligned} -4y + 4(x + y) &= -4y + (4x + 4y) \\ &= -4y + (4y + 4x) \\ &= (-4y + 4y) + 4x \\ &= 0 + 4x \\ &= 4x \end{aligned}$$

______
______
______
______
______

16. Define the following: (Use a complete sentence)
    a) rational number
    b) factor
    c) -9
    d) prime number
    e) $\sqrt{2}$

17. Draw a number line below each of the following; graph the numbers indicated by the statement:

    a) x is a whole number and $x > -2$

    b) x is a real number and $-1 \leq x \leq 5$

    c) x is a whole number and $x > 2$ and $x < 3$

    d) x is a real number and $x > 2$ or $x < -3$

    e) x is an integer and $x > 2$ and $x < 4$.

18. Define a single variable with a complete sentence for each of the following. Write an open sentence which will lead to the solution of the problem. Then determine the numbers which will make that sentence true.

    a) Joe pays a certain sum of money for a math book and 35 cents more for a novel. If he pays $4.45 for the two books, how much did the math book cost him?

    b) Two rectangles are lottered P and Q respectively. Rectangle P has a length equal to twice its width. The width of Q is equal to the length of P but the length of Q is 3 more than the length of P. If the sum of the perimeters of P and Q is 62, what is the width of P?

Appendix E.

ALGEBRA FINAL EXAMINATION

1. Factor:

   a) $6x^2 + 17x - 10$

   b) $x^4 - 13x^2 + 36$

   c) $x^3 + 64$

   d) $x^2 - y^2 - 4x + 4$

2. Simplify:

   a) $32^{2/5} - (\sqrt{16})^0$

   b) $16^{-1/4} + (1)^{3x}$

   c) $\sqrt{72x^9}$

   d) $\sqrt[3]{54a^7b} \div \sqrt[3]{2ab}$

3. Solve the system: $\begin{cases} 3x + y - 5 = 0 \\ x + 2y + 5 = 0 \end{cases}$

4. Find the least common multiple and the greatest oommon divisor of 48 and 72.

5. Write as the quotient of two relatively prime integers:

   a. 0.939393...   b. 0.2575757...

6. Solve for x: (The domain is the set of real numbers)

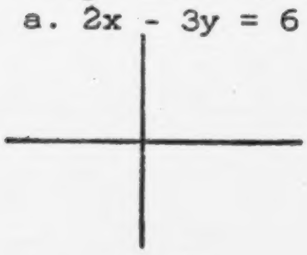
   a. $\sqrt{4x - 3} + 7 = 12$ b. $|x + 3| \leq 7$

7. Solve for x: (The domain is the set of real numbers)

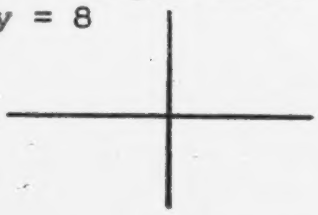
   a. $3x^2 + 11x = 4$ b. $\dfrac{x + 1}{x} - \dfrac{x - 1}{2x} = 1$

8. Graph each of the following on the axes provided:

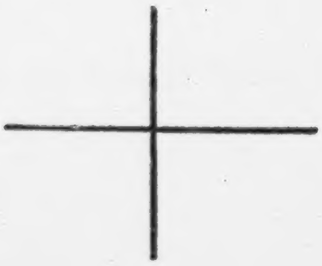
   a. $2x - 3y = 6$



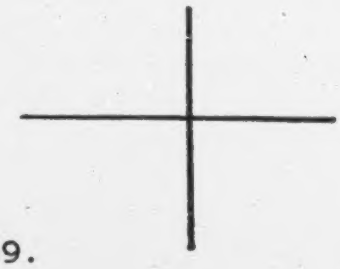
   b. $4y = 8$



   c. $x = -3y$



   d. $3x \quad y + 5$



9. Simplify each of the following:

a) $\sqrt{32} - \sqrt{18} + \sqrt{75}$　　　b) $\dfrac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}}$

10. Simplify each of the following:

a) $\dfrac{1 + 1/x}{1 - 1/x^2}$　　　b) $\dfrac{1}{x^2 - 4x + 4} + \dfrac{2}{x^2 - 4} + \dfrac{3}{5x + 10}$

11. a) Multiply 203_4 by 23_4　　　b) Subtract 234_5 from 11042_5

12. Graph and label the vertex and the axis of symmetry of:

$y = x^2 - 10x + 20$

13. a) Write an equation for the line passing through the points (2,4) and (-1,3)

b) Find the slope and the y-intercept of the graph of $5y - 2x = 7$.

14. State a property that justifies each of the following:

$\frac{1}{2}x - 5/4(x + 3) = 6$	given
$2x - 5(x + 3) = 24$	________________
$2x - 5x - 15 = 24$	________________
$(2-5)x - 15 = 24$	________________
$(2-5)x + (-15) = 24$	________________
$[-3x + (-15)] + 15 = 24 + 15$	________________
$-3x + [-15 + 15] = 39$	________________
$-3x + 0 = 39$	________________
$(-3x) = 39$	________________
$-1/3(-3x) = -1/3\ (39)$	________________
$x = -13$	

15. A man drives from Hanover to Boston at the rate of 40 M.P.H. and then returns to Hanover at the rate of 50 M.P.H. If the round trip takes 6 hours and 45 minutes, find the distance from Hanover to Boston.

16. How much water must be added to 24 quarts of solution which is 25% alcohol to obtain a solution which is 10% alcohol?

Sample Recommendation Letters

Appendix F. August 27, 1965

Re: Orlando Cassado
ABC '65

RECOMMENDED

Dear Mr. Keller:

The ABC faculty has voted unanimously to recommend Orlando Cassado to Wheelock School for admission this fall. They don't come much better. Here are the reports prepared by his teachers and his resident tutor.

Mathematics

Orlando worked hard from the start of the session to the end. He had a wonderful feeling for what we are trying to do. Many times his enthusiasm got the better of him and we found him shouting excitedly the answer to a question in class. This enthusiasm and hard work coupled with better than average ability in the subject kept him near the top of the Pre-Algebra group all summer. Had we given four prizes to these boys he would have received the fourth.

Orlando still has some difficulty with the language. This often holds him back from an even better performance. As quickly as he mastered his work here one can imagine that the language will not be a problem for very long.

Orlando is a real gentleman. He may not know all the fine points regarding the manners of a gentleman but he has the consideration and genuine concern for others which one must admire in a man. The other boys appear to recognize these qualities in him and show him as much affection as I have seen in boys from this kind of background.

In mathematics, Orlando is quick to grasp new ideas, is a bit slow with abstractions but can handle them and is quite good with the generalizations necessary at these levels. He should continue to do well in the next math course. I recommend with enthusiasm.

English

In the words of George Gershwin, "Who could ask for anything more?" Orlando's effort, attitude and performance all rate an A. Because of his South American background, he still must struggle with English and his writing is not perfect. But one could not find a boy more willing to learn. Magna cum laude! Recommended without reservation.

Resident Tutor

Orlando would be an asset to any school in the program. He has good potential, high motivation and commendable progress. He attacks any task with great and infectious enthusiasm.. He is considerate of others without mushiness. He expects and inspires the best in his peers. His work on the dance committee was superb. His abilities in the classroom and on the athletic field have won him respect and popularity with his peers.

Perhaps Orlando's best quality is his dissatisfaction with anything but the best. He is at once confident, sincere, and self-critical.

I place great confidence in his ability to succeed at Wheelock. Recommended without reservation.

* * * * * * * * * * *

There is every reason to believe that this boy will make his mark at Wheelock School and in later life. Needless to say, we shall follow his progress at Wheelock with great interest.

Sincerely yours,

Charles F. Dey
Director, Project ABC

P.S. I enclose Orlando's final examination in pre-algebra, which may be useful to you.

August 27, 1965

Appendix F.

RECOMMENDED WITH GRAVE RESERVATIONS

Re: William Daggert
ABC '65

Dear Mr. Mallon:

With grave reservations about his ability to handle preparatory school work, but with admiration for his steady progress this summer and enthusiasm for his strong personal qualities, the ABC faculty recommends that Wentworth admit William Daggert this September. At mid-program, there seemed only the remotest possibility that we might be able to recommend Bill to preparatory school. With perhaps the exception of mathematics, in the last four weeks Bill showed dramatic improvement. The following teacher and tutor comments will illustrate both our apprehensions and our admiration for this boy.

English

Bill is a well-meaning and most pleasant young man. To say that he has no background in English is putting it mildly. Insofar as I have been able to determine, he came to ABC knowing absolutely nothing about the basic elements of grammar and most certainly he did not know how to put a sentence together. It is obvious that eight weeks could scarcely remedy the harm that has been done to this boy. It is absolutely certain that Bill will need the maximum special help, and that it will take a long time for any significant improvement in English to be noticed. I believe that this boy is willing to learn, but at times he becomes very discouraged and I can scarcely blame him. I do not have it in me not to recommend Bill to preparatory school, but I believe that the school to which he is going should be perfectly aware of his many problems. I estimate that it will take two years to get this lad on his feet insofar as English is concerned. I recommend him with reservation.

Reading

Bill represents a definite academic risk at preparatory school. His reading and spelling skills, as well as his difficulty in expressing himself in writing, will present a serious handicap. However, he is well motivated and has been making a serious, concerted effort to improve. Assignments are done promptly and with increasing accuracy. Reading and study skills are improving in all areas, although Bill is somewhat erratic in applying these skills. Bill's academic transition will not be easy but if some supplementary instruction can be provided, given time, he appears to have a fair chance for success. Hence, he is recommended with grave reservations, with the hope that Wentworth will accept the challenge.

Mathematics

Bill is a boy of limited ability who has a very weak background. His effort has been unimpressive and he has shown little interest in class discussion. He is unable to handle the slightest abstraction, partly because he is unwilling to try. He has made some progress this summer, but not enough to anticipate a successful experience in a competitive academic situation. I cannot recommend him.

Resident Tutor

Bill has very limited ability in both mathematics and English. He fails to generalize and see similarities in problems in mathematics and he has no basic understanding of English grammar, and, worse yet, no ear for the language. He seems to have worked hard since the middle of the program, though it took him that long to stop wasting his time and get to work.

This boy is willing to push himself physically and has a great deal of resilience and stamina. I feel that if he can ever develop commensurate mental stamina he will fully realize his potential and will justify the confidence placed in him. It is a risk, but one I'd be willing to take mainly because of his attractive personal qualities. I suggest that he be recommended with reservation.

* * * * * * * * * * * *

In accepting Bill, your faculty will be taking on a boy who will need extra time, effort and patience. On the other hand, he is the kind of boy with whom it is fun to work -- he needs and wants help, and in a situation where people care, he is willing to put forth maximum effort. I do hope that you will want to take the risk.

Sincerely,

Charles F. Dey
Director, Project ABC

P.S. I am enclosing his mathematics final examination which may be of interest to his math teacher.

Appendix F

August 27, 1965

NOT RECOMMENDED

Re: Max Berlot
ABC '65

Dear Mr. Nissen:

I am sorry to have to send the bad news that the ABC faculty cannot recommend that you admit Max Berlot to Webster School this September. Although Max is a nice boy whom we enjoyed having in the program, as the following teacher and tutor reports indicate, he has neither the ability nor the desire necessary to succeed in preparatory school.

English

This is a painful comment to write, but I do not believe that Max has what it takes to make a success of preparatory school. Part of his problem can undoubtedly be attributed to a poor background in the subject; but the boy has shown virtually no improvement during the present session, and his motivation is highly questionable. Max just has too many strikes against him to make a go of English at the independent school level. I am almost convinced that it would be unkind to subject this boy to the normal academic load. I cannot recommend him.

Reading

Regretfully, at this point Max cannot be recommended to his preparatory school. While he has improved some aspects of his reading, his work habits and lack of concentration make the chance of his succeeding very slim. While Max seems to be genuine in his desire to attend Webster School, the fact that frequently he did not have assignments done on time, that he had difficulty staying awake in class, and that the least distraction made it impossible for him to work, do not bode well for success in preparatory school.

Mathematics

Mathematics is a difficult subject for Max. Partly because of his poor concentration and inattentiveness, partly because of ability. He was rarely involved in the work, and was generally coasting in most respects. I hardly feel that he is really motivated toward scholastic success. Unless he has special tutoring, I feel that he will be a failure in mathematics in preparatory school.

Resident Tutor

Max came to us a nice little boy, with boyish tastes, boyish boasts and boyish actions. We haven't changed Max much. If we've done anything we've made him a little homesick, a little more bitter, and, probably, much more confused.

Intellectually Max has great difficulty doing the work ABC demands. He still has great difficulty writing an English sentence, and he has no true conception of the relationship between words. This inability to organize his thoughts on paper stems from Max's poor speech patterns, and his careless, wandering mind, which Max cannot focus on any one problem for more than a few short minutes. He is better in mathematics, perhaps capable of a minimum passing grade, but he is sloppy in doing his homework and takes no pride in a neat paper or the correct answer. Most nights, I think, he is helped by other boys in the suite in mathematics, and this lack of understanding shows up during tests.

But even if Max could do the work in class, I would still have to question his qualification for preparatory school on a social basis. In the first half of the summer he was very sleepy during study hours and in class. This diminished as he adjusted, at length, to the ABC scheuule, but it was replaced by a sort of grudging acceptance of the routine. Max seemed to just go through the motions of working the final two weeks of the summer. He was unenthusiastic about all class exercises, and he did the minimum required. He has declared his firm intentions to go to preparatory school, but I think that he did this to conform to the group standards, and that deep down Max has no desire to stay East in preparatory school.

Away from the dormitory and classroom Max turns into an irrepressible bundle of wasted energy. He bounces when he walks, runs wildly, and tires quickly. He is physically strong, but on trips and at the work project he did less than his share, although he talked a great deal. Max lacks heart, on the field as well as at a desk.

Max is fun to be with, pleasant and always smiling, but regrettably I do not think he is capable of preparatory school work, or that he even wants to go. He is still scared of the system, the competition, the demands, the pressures. I do not recommend him. If Webster should accept him they will be able to house his young body, but they will fail to capture his carefree spirit and wandering mind.

* * * * * * * * *

I wish we could recommend otherwise, but this is perhaps the clearest case we have of a boy unprepared for independent school work. Indeed, it would be cruel to subject him to your competition.

I am writing a similar though somewhat abbreviated letter to his parents, and I am indicating to them that they will soon hear from you. Perhaps you could keep me posted by carbon copy.

Sincerely,

Charles F. Dey
Director, Project ABC

P.S. I enclose Max's final mathematics examination which clearly illustrates his weakness in pre-algebra.